Dolby® DP600 Program Optimizer Manual

Issue 7 Part Number 91963

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Part Number 91963
Issue 7
S10/22153/23705

Regulatory Notices

FCC

NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with this instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Canada

This Class A digital apparatus complies with Canadian ICES-003.

EU/EMC

This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

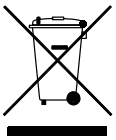
Important Safety Instructions

1. CAUTION: Troubleshooting must be performed by a trained technician. To reduce the risk of electric shock, do not attempt to service this equipment unless you are qualified to do so.
2. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding-type plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
3. This apparatus must be earthed (grounded) by connecting to a correctly wired and earthed power outlet.
4. Ensure that your mains supply is in the correct range for the input power requirement of the unit.
5. In order to reduce the risk of electrical shock, the power cord must be disconnected when the power supply assembly is removed.
6. This equipment is designed to mount in a suitably ventilated 19" rack; ensure that any ventilation slots in the unit are not blocked or covered.
7. CAUTION: This equipment contains a lithium battery. Danger of explosion if the battery is incorrectly replaced. Replace only with the same or equivalent type. Do not disassemble, crush, puncture, short external contacts, or dispose of in fire or water. Dispose of the used battery in accordance with local law.
8. The mains power disconnect device for this unit is the plug-in mains cord rather than a power switch. The mains cord must remain readily accessible for disconnecting mains power.

9. To avoid exposure to dangerous voltages and to avoid damage to the unit, do not connect the rear panel Ethernet port to telephone circuits.
10. As the colours of the cores in the mains lead may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:
    - The green and yellow core must be connected to the terminal in the plug identified by the letter E, or by the earth symbol ⏚, or coloured green, or green and yellow.
    - The blue core must be connected to the terminal marked with the letter N or coloured black.
    - The brown core must be connected to the terminal marked with the letter L or coloured red.
11. This apparatus must be earthed.

WEEE

PRODUCT END-OF-LIFE INFORMATION



This product was designed and built by Dolby Laboratories to provide many years of service, and is backed by our commitment to provide high-quality support. When it eventually reaches the end of its serviceable life, it should be disposed of in accordance with local or national legislation.

For current information, please visit our website at: www.dolby.com/environment.

IMPORTANT SAFETY NOTICE

This unit complies with safety standard EN60950-1 as appropriate. The unit shall not be exposed to dripping or splashing and no objects filled with liquids, such as coffee cups, shall be placed on the equipment. To ensure safe operation and to guard against potential shock hazard or risk of fire, the following **must** be observed:

GB

- Ensure that your mains supply is in the correct range for the input power requirement of the unit.
- Ensure **fuses** fitted are the **correct rating and type** as marked on the unit.
- The unit **must be earthed** by connecting to a correctly wired and **earthed** power outlet.
- The **power cord** supplied with this unit must be wired as follows:

Live—Brown Neutral—Blue Earth—Green/Yellow

IMPORTANT – NOTE DE SECURITE

Ce materiel est conforme à la norme EN60950-1. Ne pas exposer cet appareil aux éclaboussures ou aux gouttes de liquide. Ne pas poser d'objets remplis de liquide, tels que des tasses de café, sur l'appareil. Pour vous assurer d'un fonctionnement sans danger et de prévenir tout choc électrique ou tout risque d'incendie, veillez à observer les recommandations suivantes.

F

- Le selecteur de tension doit être placé sur la valeur correspondante à votre alimentation réseau.
- Les fusibles doivent correspondre à la valeur indiquée sur le materiel.
- Le materiel doit être correctement relié à la terre.
- Le cordon secteur livré avec le materiel doit être cablé de la manière suivante:

Phase—Brun Neutre—Bleu Terre—Vert/Jaune

WICHTIGER SICHERHEITSHINWEIS

Dieses Gerät entspricht der Sicherheitsnorm EN60950-1. Das Gerät darf nicht mit Flüssigkeiten (Spritzwasser usw.) in Berührung kommen; stellen Sie keine Gefäße, z.B. Kaffeetassen, auf das Gerät. Für das sichere Funktionieren des Gerätes und zur Unfallverhütung (elektrischer Schlag, Feuer) sind die folgenden Regeln unbedingt einzuhalten:

D

- Der Spannungswähler muß auf Ihre Netzspannung eingestellt sein.
- Die Sicherungen müssen in Typ und Stromwert mit den Angaben auf dem Gerät übereinstimmen.
- Die Erdung des Gerätes muß über eine geerdete Steckdose gewährleistet sein.
- Das mitgelieferte Netzkabel muß wie folgt verdrahtet werden:

Phase—braun Nulleiter—blau Erde—grün/gelb

NORME DI SICUREZZA – IMPORTANTE

Questa apparecchiatura è stata costruita in accordo alle norme di sicurezza EN60950-1. Il prodotto non deve essere sottoposto a schizzi, spruzzi e gocciolamenti, e nessun tipo di oggetto riempito con liquidi, come ad esempio tazze di caffè, deve essere appoggiato sul dispositivo. Per una perfetta sicurezza ed al fine di evitare eventuali rischi di scossa êlettrica o d'incendio vanno osservate le seguenti misure di sicurezza:

I

- Assicurarsi che il selettore di cambio tensione sia posizionato sul valore corretto.
- Assicurarsi che la portata ed il tipo di fusibili siano quelli prescritti dalla casa costruttrice.
- L'apparecchiatura deve avere un collegamento di messa a terra ben eseguito; anche la connessione rete deve avere un collegamento a terra.
- Il cavo di alimentazione a corredo dell'apparecchiatura deve essere collegato come segue:

Filo tensione—Marrone Neutro—Blu Massa—Verde/Giallo

AVISO IMPORTANTE DE SEGURIDAD

Esta unidad cumple con la norma de seguridad EN60950-1. La unidad no debe ser expuesta a goteos o salpicaduras y no deben colocarse sobre el equipo recipientes con liquidos, como tazas de cafe. Para asegurarse un funcionamiento seguro y prevenir cualquier posible peligro de descarga o riesgo de incendio, se han de observar las siguientes precauciones:

E

- Asegúrese que el selector de tensión esté ajustado a la tensión correcta para su alimentación.
- Asegúrese que los fusibles colocados son del tipo y valor correctos, tal como se marca en la unidad.
- La unidad debe ser puesta a tierra, conectándola a un conector de red correctamente cableado y puesto a tierra.
- El cable de red suministrado con esta unidad, debe ser cableado como sigue:

Vivo—Marrón Neutro—Azul Tierra—Verde/Amarillo

VIKTIGA SÄKERHETSÅTGÄRDER!

Denna enhet uppfyller säkerhetsstandard EN60950-1. Enheten får ej utsättas för yttre åverkan samt föremål innehållande vätska, såsom kaffemuggar, får ej placeras på utrustningen. För att garantera säkerheten och gardera mot eventuell elchock eller brandrisk, måste följande observeras:

S

- Kontrollera att spänningsväljaren är inställd på korrekt nätspänning.
- Konrollera att säkringarna är av rätt typ och för rätt strömstyrka så som anvisningarna på enheten föreskriver.
- Enheten måste vara jordad genom anslutning till ett korrekt kopplat och jordat el-uttag.
- El-sladden som medföljer denna enhet måste kopplas enligt foljande:

Fas—Brun Neutral—Blå Jord—Grön/Gul

BELANGRIJK VEILIGHEIDS-VOORSCHRIFT:

Deze unit voldoet aan de EN60950-1 veiligheids-standaards. Dit apparaat mag niet worden blootgesteld aan vocht. Vanwege het risico dat er druppels in het apparaat vallen, dient u er geen vloeistoffen in bekers op te plaatsen. Voor een veilig gebruik en om het gevaar van electrische schokken en het risico van brand te vermijden, dienen de volgende regels in acht te worden genomen:

NL

- Controleer of de spanningscaroussel op het juiste Voltage staat.
- Gebruik alleen zekeringen van de aangegeven typen en waarden.
- Aansluiting van de unit alleen aan een geaarde wandcontactdoos.
- De netkabel die met de unit wordt geleverd, moet als volgt worden aangesloten:

Fase—Bruin Nul—Blauw Aarde—Groen/Geel

Table of Contents

Chapter 1 Introduction

1.1 Work-Flow Integration 3
1.2 Work-Flow Flexibility and Ease of Use 3
1.3 Applications 4
1.4 Supported Media Formats and Audio Types 5
1.5 DP600 Front Panel 6
1.5.1 Touch-Screen User Interface 6
1.5.2 CD/DVD-ROM Drive 6
1.5.3 System Reset and Display Controls 7
1.5.4 Power Supply Indicators 7
1.5.5 Internal Drive Indicators 7
1.5.6 USB 2.0 Port 8
1.6 DP600 Rear Panel 9

Chapter 2 Using the DP600

2.1 Installing the DP600 Hardware 11
2.2 Starting the System for the First Time 12
2.2.1 DP600 Home Screen 24
2.2.2 Using the System Screen 25
2.3 Using the DP600 Remote Client Software 27
2.3.1 Understanding Work Orders 27
2.3.2 Running the DP600 Client 29
2.3.3 DP600 Client Home Screen 30
2.4 Creating a Work Order 31

Chapter 3 System Maintenance

3.1 Maintaining the DP600 Hard Drives 49
3.1.1 Replacing a Drive 50
3.1.2 Rebuilding DP600 Drives 55
3.2 Replacing a DP600 Power Supply 57
3.3 Upgrading/Installing the DP600 Software 60
3.4 Upgrading Licenses 61
3.5 Rebooting and Shutting Down 61

Appendix A Setting Up a Shared Folder and Entering a Path

A.1 Setting Up a Shared Folder 63
A.2 Entering a Path 64
A.3 Entering a Source Path 64
A.3.1 Entering a URL to Specify a Path 65
A.3.2 Browsing to a Location to Specify a Path 67

A.3.3 Selecting a Bookmark to Specify a Path....70
A.3.4 Entering a Path for Work Orders with Multiple Files....71
A.4 Entering a Destination Path....73

Appendix B DP600 Program Optimizer Detailed Profile Descriptions

B.1 Understanding DP600 Profiles....75

Appendix C System Administrator Functions

C.1 Access Levels....79
C.1.1 Admin Level....79
C.1.2 User Level....79
C.1.3 Viewer Level....79
C.2 Setting Up an Admin Level Password....80
C.3 Adding Users....83
C.4 Deleting IDs and Passwords....83
C.5 Changing the Default Access Level....83
C.6 Reconfiguring the System....84

Index....95

List of Figures

Figure 1-1 Coded Audio with Metadata Analysis and Correction 2
Figure 1-2 Audio Analysis and Correction for Audio Types Without Metadata 2
Figure 1-3 DP600 Front Panel 6
Figure 1-4 DP600 CD/DVD-ROM Drive (Behind Touch-Screen Door) 6
Figure 1-5 DP600 Rear Panel 9
Figure 2-1 Connect DP600 to Network 11
Figure 2-2 Connect DP600 Keyboard (Front-Panel Connection) 11
Figure 2-3 DP600 Welcome! Screen 12
Figure 2-4 Network Information Dialog Box 13
Figure 2-5 Network Configuration Dialog Box 13
Figure 2-6 Hostname Keypad 14
Figure 2-7 Enter Gateway Address Number Pad Screen 14
Figure 2-8 Network Tools Dialog Box 15
Figure 2-9 Network Tools Ping 16
Figure 2-10 Network Tools Trace Route 16
Figure 2-11 Date and Time Information Screen 17
Figure 2-12 Time Configuration 17
Figure 2-13 NTP Settings Fields 18
Figure 2-14 Set Server Date/Time Screen 18
Figure 2-15 Select Region Screen 19
Figure 2-16 Select City or Zone Screen 19
Figure 2-17 License Screen 20
Figure 2-18 Select Product Licensing on Dolby Support Home Page 21
Figure 2-19 Get New License File Page 21
Figure 2-20 Registered Products Page 22
Figure 2-21 License Confirmation Prompt 23
Figure 2-22 Finished! Screen 23
Figure 2-23 DP600 Front-Panel Home Screen 24
Figure 2-24 System Screen 25
Figure 2-25 Info Screen 25
Figure 2-26 Status Screen 26
Figure 2-27 Volumes Screen 26
Figure 2-28 Disks Screen 27
Figure 2-29 DP600 Program Optimizer Splash Screen 29
Figure 2-30 DP600 Client Home Screen 30
Figure 2-31 Displaying the Work Orders Screen 31
Figure 2-32 Adding a Work Order 31
Figure 2-33 Login Screen 32
Figure 2-34 Add Workorder Screen (All Work Orders Except Grass Valley Hot Folder) 32
Figure 2-35 Add Workorder Screen (Grass Valley Hot Folder) 33
Figure 2-36 Select a Work Order Type Screen 33
Figure 2-37 Selecting a Work Order Profile (Default Profiles Displayed) 34
Figure 2-38 Enter Path Screen 35
Figure 2-39 Additional Settings Screens 36
Figure 2-40 Entering the Work Order Start Time 37
Figure 2-41 Entering the Work Order End Time (For Work Orders with Multiple Files Only) 37
Figure 2-42 Work Order Running as Displayed in Home Screen 39
Figure 2-43 Work Orders Screen Displays Database 40

Figure 2-44 Workorder Filter Criteria Screen 40
Figure 2-45 Date Created Options 41
Figure 2-46 Set Priority Values 42
Figure 2-47 Work Orders Info Screen 42
Figure 2-48 Info Reports Screen 43
Figure 2-49 Detailed Report Displayed in Reports Info Screen 44
Figure 2-50 Export Report Confirmation 45
Figure 2-51 Edit Selected Workorder Screen 45
Figure 2-52 Click Reports in Home Screen 46
Figure 2-53 Click Info in Home Reports Screen 46
Figure 2-54 Display Report in Home Reports Info Screen 47
Figure 3-1 Red LED Indicates Failed Disk Drive 50
Figure 3-2 Swing Out Touch-Screen Panel 51
Figure 3-3 Locate Pry Areas Behind Drive Cover 51
Figure 3-4 Remove the DP600 Drive Cover 52
Figure 3-5 Remove the Drive Retaining Bracket 52
Figure 3-6 Physical Drive Numbers 53
Figure 3-7 Remove Failed Drive from DP600 53
Figure 3-8 Insert Replacement Drive in DP600 54
Figure 3-9 Reinstall Retaining Bracket 54
Figure 3-10 Reinstall Front-Panel Drive Cover 55
Figure 3-11 DP600 Front-Panel Power Supply Indicator 57
Figure 3-12 DP600 Failed Power Supply (Top Unit in Figure) 57
Figure 3-13 Loosen Thumbscrew on Failed Power Supply 58
Figure 3-14 Press on Tab and Pull Handle to Remove Failed Power Supply 58
Figure 3-15 Remove Failed Power Supply 59
Figure 3-16 Install New Power Supply 59
Figure 3-17 New Power Supply Installed and AC Cable Reconnected 60
Figure 3-18 Calibration Setup Screen 61
Figure A-1 Add Workorder Screen 64
Figure A-2 Enter Path Screen 65
Figure A-3 Type URL in Enter Path Screen 65
Figure A-4 URL Entered in Add Workorder Screen 66
Figure A-5 Click Browse in the Enter Path Screen 67
Figure A-6 Select Protocol Screen 67
Figure A-7 Enter User Credentials Screen 68
Figure A-8 Enter Server Details Screen 68
Figure A-9 Select File Screen 69
Figure A-10 Add Bookmark Screen 69
Figure A-11 Selecting a Bookmark 70
Figure A-12 Bookmark Entered in Source Field 70
Figure A-13 Enter Path Screen for Multi-File Standard Work Order 71
Figure A-14 Enter Path Screen for Mono-Only Standard Work Order 71
Figure A-15 Enter Path Screen for Mono-Only Hot Folder Work Order 72
Figure A-16 Simple Configuration File Pattern Data-Entry Fields 72
Figure A-17 Simple Configuration File Pattern Example 73
Figure C-1 Press or Click the Lock Icon to Display the Login Screen 80
Figure C-2 Login User Screen 81
Figure C-3 Press or Click Config in System Screen 81
Figure C-4 Press or Click Users in Config Screen 82
Figure C-5 Press or Click + in Add and Remove Users Screen 82
Figure C-6 Add Admin Level User 83
Figure C-7 System Screen 84
Figure C-8 Config Screen 84
Figure C-9 Date & Time Reboot Screen 85
Figure C-10 Calibrate Button 86

Figure C-11 Calibration Setup Screen 86
Figure C-12 Upgrade Screen 87
Figure C-13 License Upgrade Screen 87
Figure C-14 Maintenance Screen 88
Figure C-15 Report Archive Criteria Screen 89
Figure C-16 Workorder Deletion Criteria Screen 89
Figure C-17 Automation Screen 90
Figure C-18 Enter New Automation Criteria Screen 91
Figure C-19 Automation Screen After Setting Up Criteria 91
Figure C-20 Logs Screen (Success) 92
Figure C-21 Logs Screen (Failure) 92
Figure C-22 Update Automation Criteria Screens 92
Figure C-23 Select System Log Output Directory Screen 93
Figure C-24 Loudness Log Export Screen 93
Figure C-25 Power Screen 94
Figure C-26 Reboot DP600 Confirmation Prompt 94
Figure C-27 OK to Shut Down when This Screen Appears (And the Drive LEDs Are Not Active) 94

Introduction

Welcome to Dolby® file-based audio!

The Dolby DP600 Program Optimizer is a result of Dolby Laboratories' continued leadership in the development of innovative broadcast technologies.

The DP600 provides a file-based work-flow solution for loudness correction, audio conversion, and upmixing. It is specifically designed for use in cable, satellite, IPTV, terrestrial TV, radio, and postproduction facilities. The DP600 includes the world's first intelligent audio analysis and automated loudness normalization engine, along with the ability to encode, decode, convert, or transcode between the following Dolby formats: Dolby Digital, Dolby Digital Plus, and Dolby E bitstreams; as well as PCM and MPEG-1 LII. It also features a newly designed algorithm for upmixing legacy two-channel audio for 5.1-channel delivery. To ease the transition into a file-based workflow, the DP600 also supports many of the most common broadcast media file and audio formats in use today.

For compressed audio formats that include metadata (for example, Dolby E, Dolby Digital, and Dolby Digital Plus), the DP600 can automatically set or correct the `dialnorm` audio metadata parameter (see Figure 1-1).

For audio formats that do not include metadata, the DP600 can automatically set or correct the `dialnorm` parameter by referencing a user-defined target level (see Figure 1-2).

Content producers and broadcasters can reduce loudness complaints by using the DP600 to provide viewers with a consistent audio experience across programs, channels, and networks. Expanding upon the unique Dialogue Intelligence™ technology developed for the Dolby LM100 Broadcast Loudness Meter, the DP600 normalizes the loudness of audio programs while preserving their original dynamic range.[1] The DP600 analyzes the loudness of file-based audio bitstreams coded in Dolby Digital, Dolby Digital Plus, and Dolby E, and validates and corrects the `dialnorm` parameter without the need for decoding and reencoding the original audio bitstream. The DP600 also provides intelligent speech-based loudness normalization for both PCM audio and MPEG-1 LII audio.

The DP600-C provides faster-than-real-time file-based encoding, decoding, and conversion between all of Dolby's audio formats (Dolby Digital, Dolby Digital Plus, and Dolby E), PCM, and MPEG-1 LII, while preserving the audio metadata. In addition, it offers a unique, high-quality, single-step Dolby Digital to Dolby Digital Plus converter that preserves the metadata and minimizes tandem coding losses. This allows the audio from existing media archives to be converted to next-generation broadcast formats. The DP600 also supports Dolby Pro Logic® II encoding for two-channel matrix-encoded content derived from multichannel source files.

[1] In very rare cases involving extreme loudness corrections that require gain, soft limiting will occur only during program peak levels that would exceed clipping after applying this type of loudness correction.

Customers interested in enhancing two-channel audio for use in 5.1-channel applications can purchase an optional DP600 software upgrade that adds an intelligent file-based upmixing capability. This unique process is based on a newly developed Dolby algorithm that creates a wider, natural-sounding sweet spot. It also ensures that subsequent downmixing is free from artifacts typically found with other solutions. The upmixing process can be adaptively integrated into the same DP600 work-flow profiles utilized for file-based loudness correction, encoding, decoding, conversion, and transcoding.

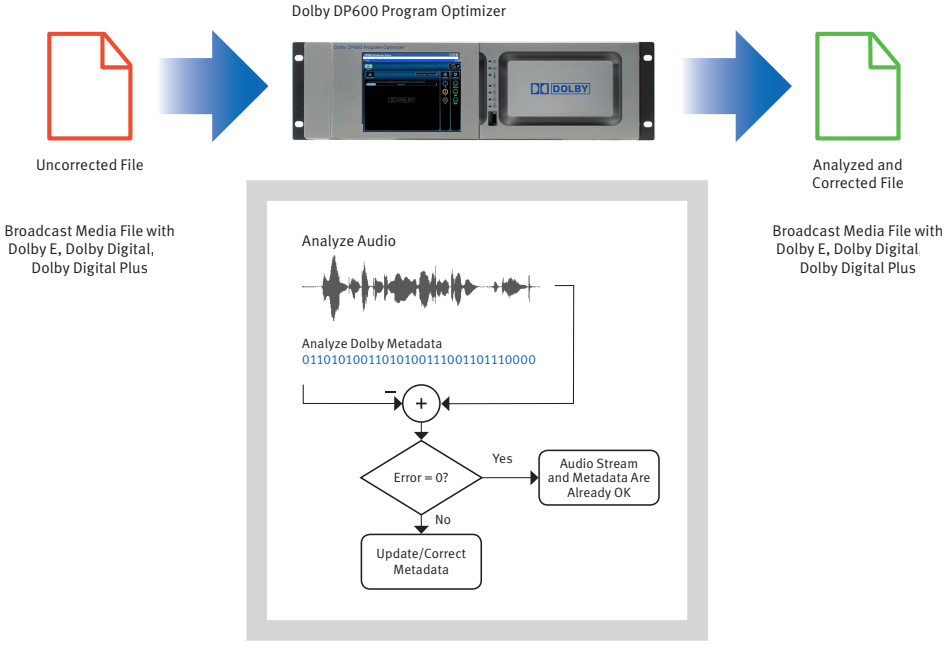

Dolby DP600 Program Optimizer
Uncorrected File
Broadcast Media File with Dolby E, Dolby Digital, Dolby Digital Plus
Analyzed and Corrected File
Broadcast Media File with Dolby E, Dolby Digital Dolby Digital Plus
Analyze Audio
Analyze Dolby Metadata
01101010011010100111001101110000
Error = 0?
Yes
Audio Stream and Metadata Are Already OK
No
Update/Correct Metadata

Figure 1-1 Coded Audio with Metadata Analysis and Correction

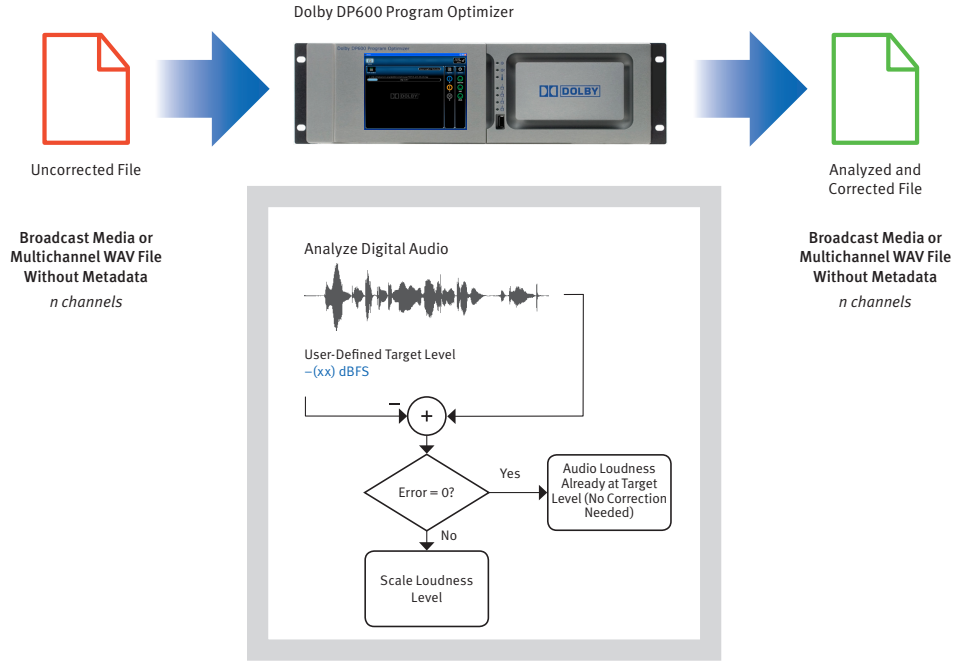


Figure 1-2 Audio Analysis and Correction for Audio Types Without Metadata

1.1 Work-Flow Integration

You can integrate the DP600 into an existing file-based network infrastructure as an intelligent processing node. In this environment, the DP600 adapts to your day-to-day operations and work flow, which includes:

- Program ingest, audio transcoding and conversion, and quality control (QC): Newly ingested content can be routed through the DP600 for loudness analysis and correction, encoding, decoding, and conversion processes before being moved to your media storage library or play-out server.
- Postproduction: File-based Dolby E, Dolby Digital, and Dolby Digital Plus bitstreams can be encoded and decoded to and from multichannel .wav or Broadcast .wav Format (BWF) files with metadata (included in the Dolby audio metadata chunk). File-based media and audio assets can be analyzed, logged, and (if necessary) corrected in faster than real time before delivery to clients.
- Ad insertion: Newly ingested ad content can be passed directly to the DP600 for loudness analysis and correction before it's placed in your storage archive or ad server.
- Video-on-demand (VOD): Customer-facing VOD servers, as installed at cable and IPTV head-ends, need to have their content normalized before it is made available to the public. This content can be supplied to the servers either directly, via an ingest department at the broadcaster or affiliate, or via satellite from one or more content aggregators. The DP600 can be installed at the content aggregator, normalizing content before it is sent ("pitched") over the satellite link. Alternatively, it can be installed at the head-end, taking content that has either been ingested directly or caught from one or more pitchers and normalizing it before it is passed to the customer-facing server.

1.2 Work-Flow Flexibility and Ease of Use

The Dolby DP600 platform supports several types of applications, including archiving, automated QC, content conversion, and media asset management; it offers considerable potential for integration with third-party systems through an open application programming interface (API).

To meet specific user requirements, you can control the DP600 and its processing engines in three ways:

- Manual control: Users can set up and initiate work orders on an individual or batch basis from a simple-to-use interface.
- Third-party control via Web services: To enable system integration at any level, the DP600's processing engines are also available as a set of Web services. This allows manufacturers to integrate these engines directly into their work flow to create a seamless user experience without impacting day-to-day operations.
- Automatic hot folder ingest process: Users can create hot folders and predefine a work order profile for each one. The profile governs the DP600's behavior with specific broadcast media types. All media files moved to a hot folder are automatically processed based on the folder's profile and delivered to a user-defined folder upon completion. Hot folders are easy to set up and use and can greatly speed integration time within some facilities.

1.3 Applications

The DP600 is specifically designed for use in cable, satellite, IPTV, terrestrial TV, radio, and postproduction facilities.

Cable Applications

- Automated VOD file analysis and loudness correction
- Automated VOD file transcoding and conversion
- Automated digital program insertion (DPI) file analysis and loudness correction
- Automated broadcast media file audio transcoding and conversion
- Automated broadcast media file QC and loudness correction

Satellite Applications

- Pay-per-view (PPV) file analysis and loudness correction
- PPV file audio transcoding and conversion
- Automated broadcast media file audio transcoding and conversion
- Automated broadcast media file QC and loudness correction

IPTV Applications

- Automated VOD file analysis andloudness correction
- Automated VOD file transcoding and conversion
- Automated broadcast media file audio transcoding and conversion
- Automated broadcast media file QC and loudness correction

Terrestrial Applications (Networks/Affiliates/Independent Stations)

- Broadcast media file QC and loudness correction
- Broadcast media file (GXF, MXF, others) audio transcoding and conversion

Postproduction Applications

- Automated loudness analysis, setting and correction of `dialnorm` metadata for programming destined for broadcast
- Automated normalization of content without metadata (to meet your customer's delivery specifications)
- Faster-than-real-time automated transcoding and conversion of broadcast media files

1.4 Supported Media Formats and Audio Types

The DP600 supports many media formats and audio types, including media file formats and linear and coded audio types.

Media File Formats

GXF (SMPTE 360M);MXF operational patterns per SMPTE 390M (OP-Atom); SMPTE 378M (OP-1a); SMPTE 391M (OP-1b with internal essence file formats only); MXF container (essence) support per SMPTE 379M (GC); SMPTE 381M (GC-MPEG); SMPTE 383M (GC-DV minus support for audio essence interleaved in DV); SMPTE 382M (GSC-AESBWF); SMPTE 386M (IMX with D10 Audio); MPEG-2 program stream; MPEG-2 single program transport stream; MP4

Linear Audio Types

- .wav, bwf, and multichannel .wav files with or without a Dolby audio metadata .wav chunk
- .aiff, including multichannel
- 16-, 20-, and 24-bit PCM (within any of the aforementioned media file formats)

Coded Audio Types

Dolby Digital (AC-3), Dolby Digital Plus (E-AC-3), Dolby E, MPEG-1 LII

1.5 DP600 Front Panel

The DP600 front panel includes the following components:

- Touch-screen user interface
- CD/DVD-ROM drive and system reset/display controls (behind touch-screen door)
- Power supply indicators
- Local storage indicators
- USB 2.0 port

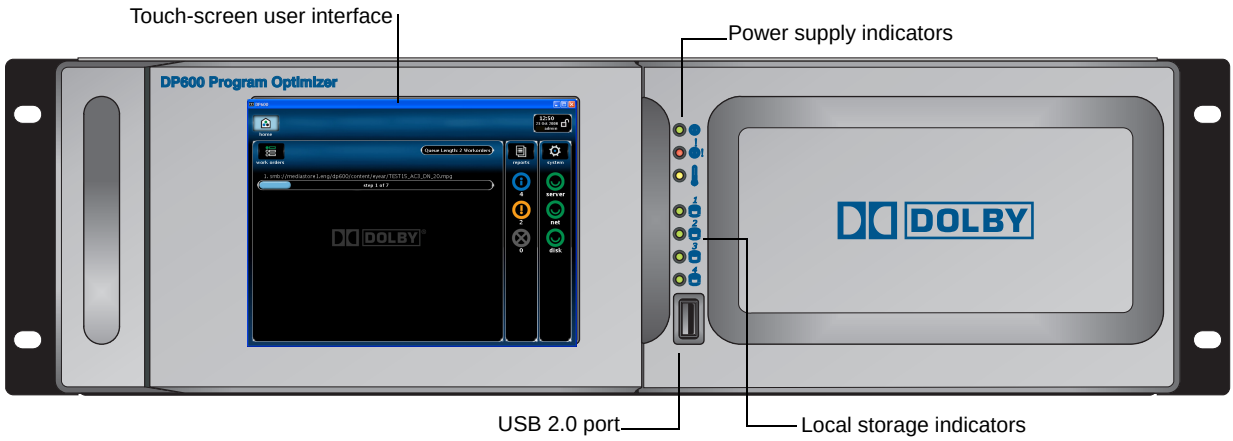


Figure 1-3 DP600 Front Panel

1.5.1 Touch-Screen User Interface

The LCD touch screen provides user controls for the initial configuration; rescheduling, canceling, and pausing work orders and reports; and checking the system status. You simply touch the icon that represents the desired function, and the DP600 responds accordingly. To add and configure work orders and export reports, you need to use the DP600 Client, as described in Section 2.3. For a complete description of all work order functions, see Section 2.3.1.

1.5.2 CD/DVD-ROM Drive

The CD/DVD-ROM drive is located behind the touch-screen door. With this drive, you can perform DP600 software upgrades.

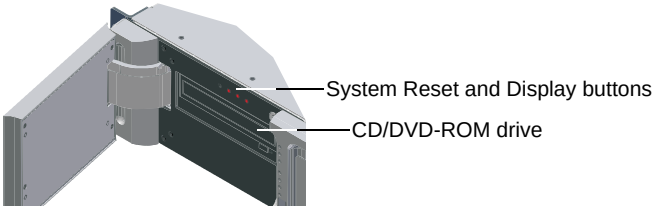


Figure 1-4 DP600 CD/DVD-ROM Drive (Behind Touch-Screen Door)

Note: You cannot play commercial CDs or DVDs in the DP600 CD/DVD-ROM drive.

1.5.3 System Reset and Display Controls

These recessed buttons are located behind the touch screen, above the CD/DVD-ROM drive. If you need to press any of these buttons, use a nonconductive material, such as a toothpick.

If you press the **System Reset** button, the system restarts. Press this recessed button only if you cannot restart the system by pressing <Ctrl> + <Alt> + <Delete> to restart. Always avoid restarting by disconnecting and reconnecting the power cables.

You can use the **Display** control button to adjust the LCD display.

1.5.4 Power Supply Indicators

Three power supply LEDs on the front panel indicate whether the power is on, if one of the redundant power supplies has failed, and the temperature of the unit.

Power: This green LED lights when the DP600 has power.

Power supply failure: This red LED is off during normal operation. It lights or flashes red if either of the redundant power supplies fails.

Temperature: This tricolor LED glows green when the temperature of the unit is cool, yellow if the temperature is warm, and red if the temperature is hot. If this LED is yellow or red, the operating environment may be warmer than expected and in need of modification. In such a case, call your Dolby authorized technical representative immediately.

1.5.5 Internal Drive Indicators

The DP600 has five physical internal hard drives. Drives 1 and 2 are arranged in a RAID 1 configuration to provide protection for the operating system as well as local storage. The remaining three hard drives are configured as separate drives to provide local storage. This configuration of one RAID pair and three separate drives represents four logical drives.

There are four bicolor LEDs on the front panel, labeled **1**, **2**, **3**, and **4**. These LEDs indicate the status of the DP600's four logical internal hard drives. The drive LEDs function as follows:

- Off (nonilluminated): Indicates a functional drive with no current disk access activity
- Green: Indicates normal drive activity
- Red: Indicates a drive failure

LED **1** shows the status of the two-drive RAID 1 configuration. The operating system is installed on these mirrored drives to prevent a physical drive failure, resulting in an inoperable system. If either of the mirrored drives fails, the other RAID drive enables the system to operate normally until the failed drive is replaced.

LEDs **2**, **3**, and **4** indicate the status of the other three physical disks. These disks are configured as separate drives and do not have RAID backup capability. If any of these drives fail, the failed drives must be replaced, and any work orders in progress during the failure must be restarted.

If one of the drive LEDs turns red, refer to Table 1-1 to determine which physical drive failed. Typically, the DP600 automatically rebuilds the RAID array when one of the RAID drives has a problem or is replaced (with the power on). During the RAID rebuild process, LED **1** blinks in red in half-second intervals. When the rebuild process is complete, LED **1** stops blinking.

In some instances (for example, if you replace a non-RAID drive), you must initiate the rebuild process manually, as described in Section 3.1.2.

If you replace both RAID drives, you also need to reinstall the DP600 software. In such a case, follow the instructions for a clean installation in Section 3.3. When you reinstall the software, the system automatically synchronizes the two RAID drives, re-creating the original mirrored RAID array (manual rebuild not required).

For instructions on replacing a drive, see Section 3.1.1.

Table 1-1 Local Storage LED Conditions

Front-Panel LED	Condition	Failed Physical Drive
1	Solid red	1
1	Blinks in red in two-second intervals	2
1	Blinks in red in half-second intervals	Rebuilding RAID
2	Solid red	3
3	Solid red	4
4	Solid red	5

1.5.6 USB 2.0 Port

The front-panel USB 2.0 port is provided for license loading from a USB flash drive or to connect the provided USB keyboard.

1.6 DP600 Rear Panel

The DP600 rear panel includes the following components:

- Dual-redundant power supplies (with red alarm reset button)
- Two PS/2 ports: To connect a PS/2 keyboard and/or mouse
- Four USB 2.0 ports: To connect a USB flash drive for license loading and/or a USB keyboard and mouse
- One 10/100/1000Base-T Ethernet port (with auto-detection): To connect to your network
- SVGA monitor port: To connect a monitor, which mirrors the front-panel touch screen
- Two fans
- Two serial ports (for future use)
- Audio ports (for future use)
- Three empty PCI slots (for future use)

Figure 1-5 shows the currently active components on the DP600 rear panel.

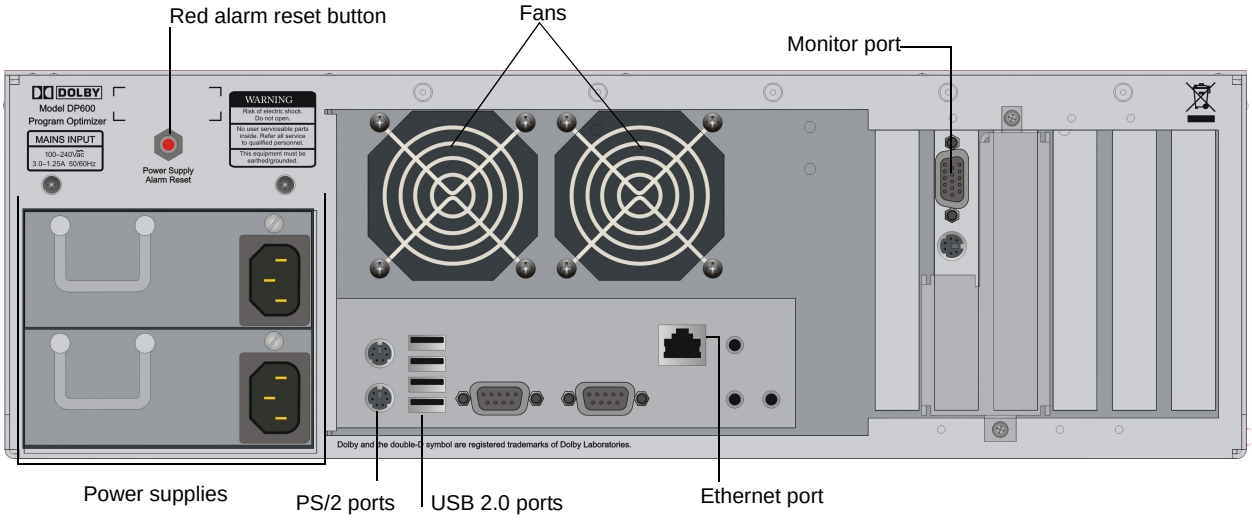


Figure 1-5 DP600 Rear Panel

Send Us Your Feedback

If you have a question or a comment regarding this chapter, send us an email.

2.1 Installing the DP600 Hardware

To install the Dolby® DP600:

1. Connect one end of the provided Ethernet cable to the Ethernet port (port 0) on the DP600 rear panel.
2. Connect the other end of the provided Ethernet cable to your network.
3. Connect both power supplies to a power source using the provided power cables.

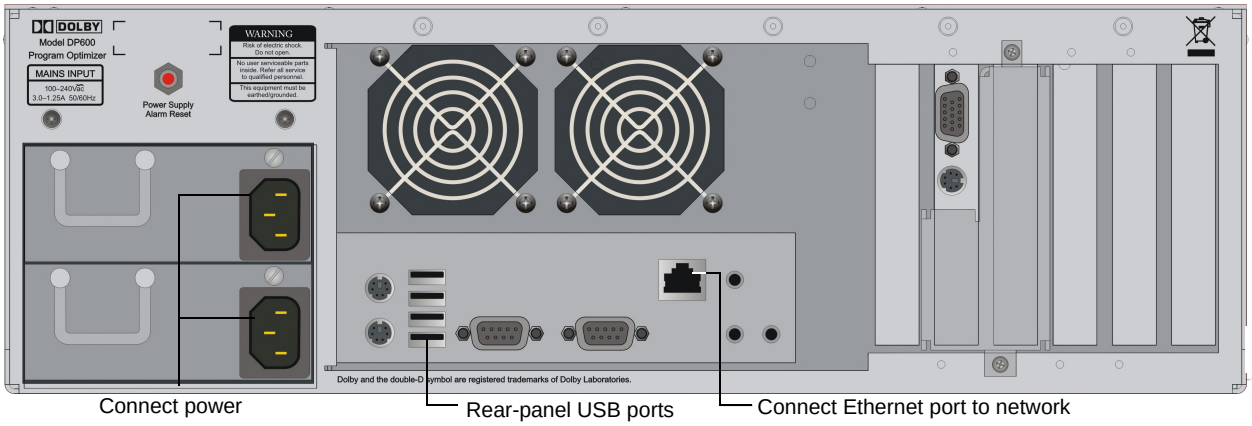


Figure 2-1 Connect DP600 to Network

Note: Some early models have two Ethernet ports. The lower Ethernet port is nonfunctional on these units.

4. Connect the provided USB keyboard to the DP600 front-panel USB port or one of the rear-panel USB ports. Typically, when initially configuring the system, you use the touch screen, as explained in Section 2.2, but you can also use the keyboard.

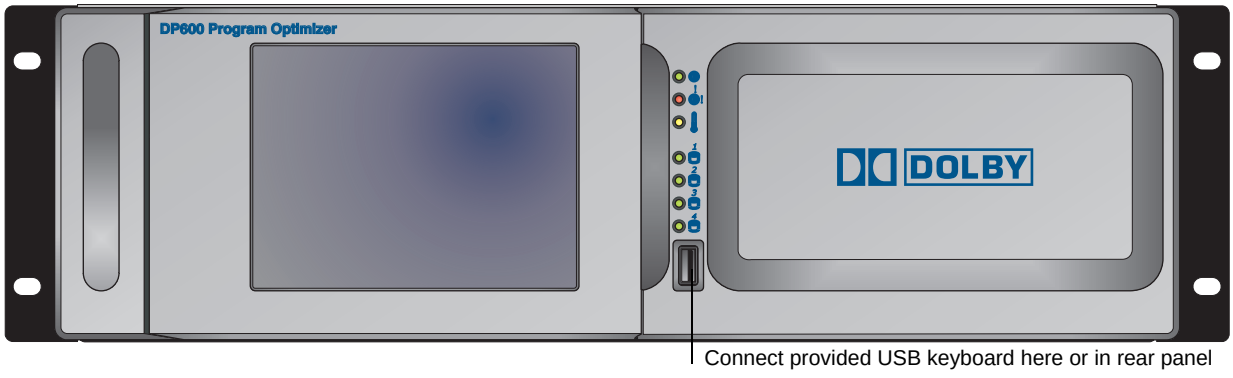


Figure 2-2 Connect DP600 Keyboard (Front-Panel Connection)

2.2 Starting the System for the First Time

Note: Before starting the system, be sure it's connected to an active network. To download your license and enable the DP600, you also need a PC with Internet access and an available USB port, and the USB device provided with your unit.

The DP600 touch screen provides a user-friendly interface where you perform actions by pressing the respective screen area. The touch screen is calibrated during the manufacturing process.

When you start the DP600 for the first time, the DP600 **Welcome!** screen appears, which provides a checklist of things you need before you can set up the system, as shown in Figure 2-3.

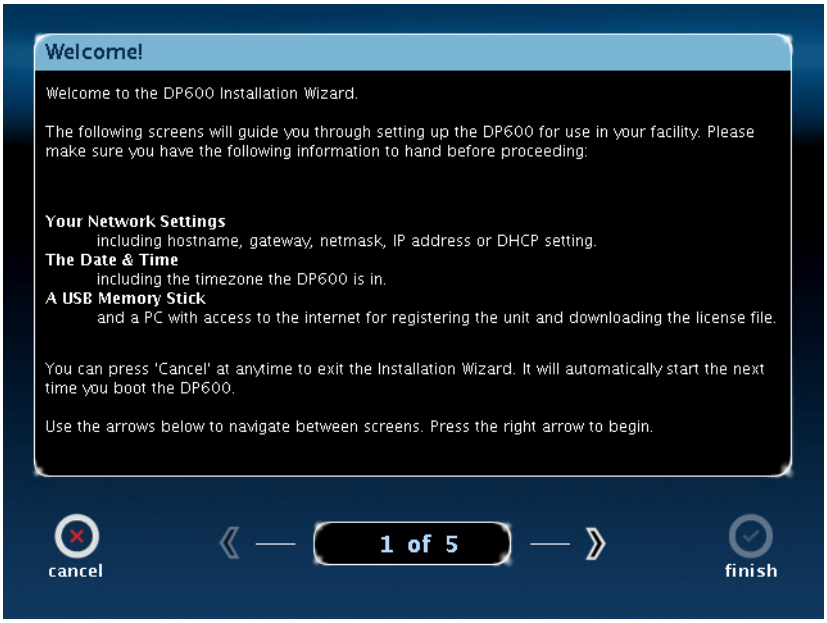

Welcome!
Welcome to the DP600 Installation Wizard.
The following screens will guide you through setting up the DP600 for use in your facility. Please make sure you have the following information to hand before proceeding:
Your Network Settings
including hostname, gateway, netmask, IP address or DHCP setting.
The Date & Time
including the timezone the DP600 is in.
A USB Memory Stick
and a PC with access to the internet for registering the unit and downloading the license file.
You can press 'Cancel' at anytime to exit the Installation Wizard. It will automatically start the next time you boot the DP600.
Use the arrows below to navigate between screens. Press the right arrow to begin.
cancel
1 of 5
finish

Figure 2-3 DP600 Welcome! Screen

To configure the system:

1. Be sure you are ready to proceed by checking the **Welcome!** screen, then press the right arrow at the bottom of the screen.

   The **Network Information** screen appears, which shows the current network settings, as shown in the example in Figure 2-4.

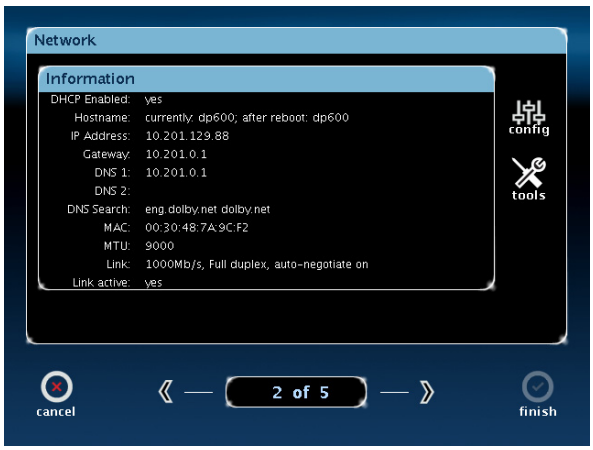


Figure 2-4 Network Information Dialog Box

2. Press the **config** button on the right side of the screen.

   The **Network Configuration** dialog box appears, as shown in the example in Figure 2-5. Before you set up the system, the IP address appears only if you enter a static IP address (DHCP unchecked). If you're using DHCP, the IP address does not appear until you complete the system setup.

Note: In this dialog box, and in all the following DP600 setup screens, you enter information to configure your system. If you press the **cancel** button at the bottom left corner of any of the following setup screens, the system cancels all of your entries (in all the setup screens, in addition to the currently displayed setup screen). A cancel confirm prompt appears. If you confirm, the unit cancels your entries and automatically reboots, and then the **Welcome!** screen reappears. At this point, you can reenter your settings.

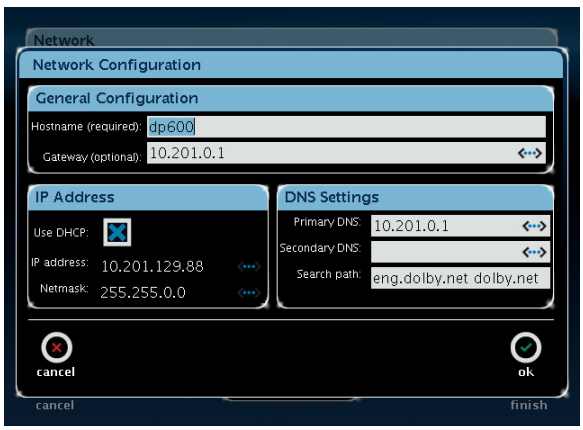


Figure 2-5 Network Configuration Dialog Box

3. In the **General Configuration** box, press the **Hostname** field.

   The **Enter Hostname** alphanumeric key pad appears, as shown in Figure 2-6. A keypad will appear in the appropriate format where you need to make entries using the touch screen.

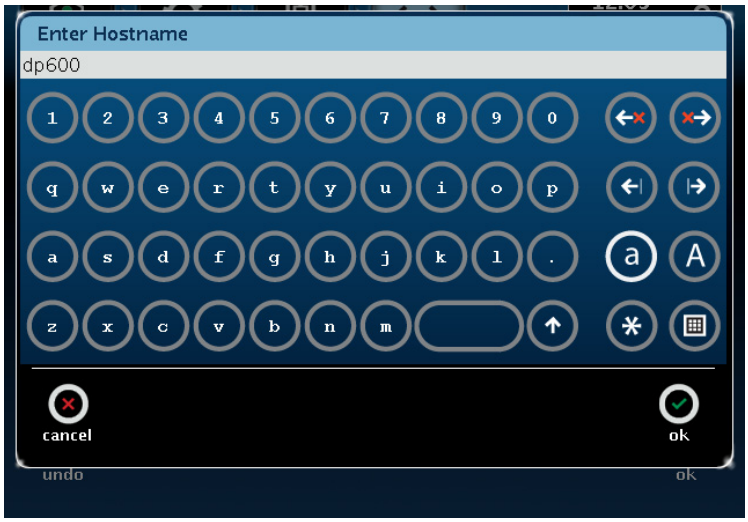


Figure 2-6 Hostname Keypad

4. Press on the desired keys to enter a host name, then select **ok**.

   Be sure to enter a unique name using only alphanumeric characters, hyphens, and periods (for example, dp600-unit-1).

5. In the **General Configuration** box, press on the **Gateway** field.

   The **Enter Gateway Address** number pad appears, as shown in Figure 2-7.

Figure 2-7 Enter Gateway Address Number Pad Screen

6. Press on the desired numbers to enter an optional gateway address, then select **ok**.
7. In the **IP Address** box, press the **Use DHCP** box (if it is unchecked) for dynamic addressing or uncheck this box (by pressing on it) if you want to enter a static IP address.

8. If you specified a static IP address, the respective fields are now active. Make your entries by pressing on the **IP Address** and **Netmask** fields to display the corresponding number pad screens, then press on the appropriate numbers (see the gateway address number pad instructions described in step 5). Alternatively, you can press on the field, and then use the USB keyboard to make your entries.
9. In the **DNS Settings box**, press on the **Primary DNS** and **Secondary DNS** fields and enter the desired settings.
10. Press **OK** to save your network configuration.

    The **Network Information** dialog box (shown in Figure 2-4) reappears with your network settings, except for your unique host name. You need to reboot the system to display the new host name.

11. Press **Tools** in the **Network Information** screen.

    The **Network Tools** dialog box appears, as shown in Figure 2-8. In this screen, you can enter a remote host and perform ping or trace route operations by pressing the respective button (see Figure 2-9 and Figure 2-10).

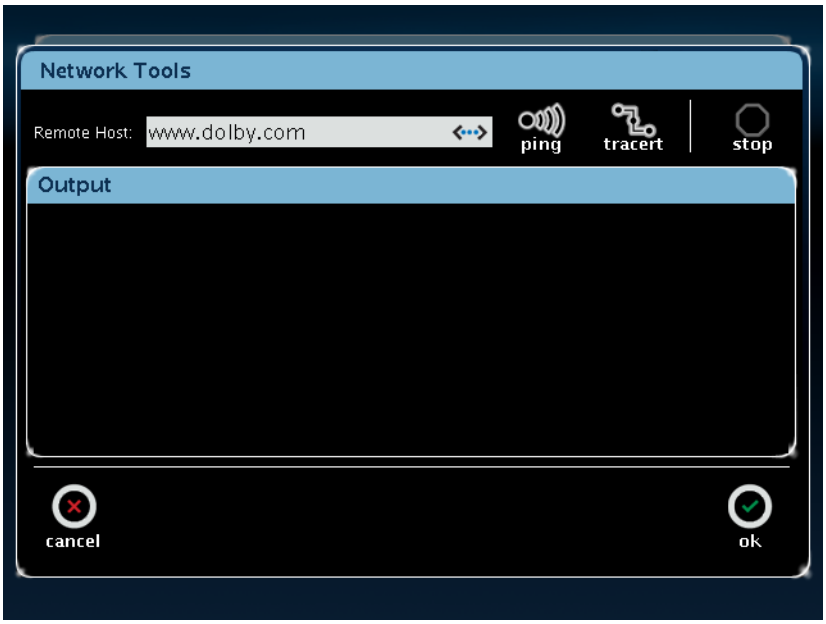


Figure 2-8 Network Tools Dialog Box

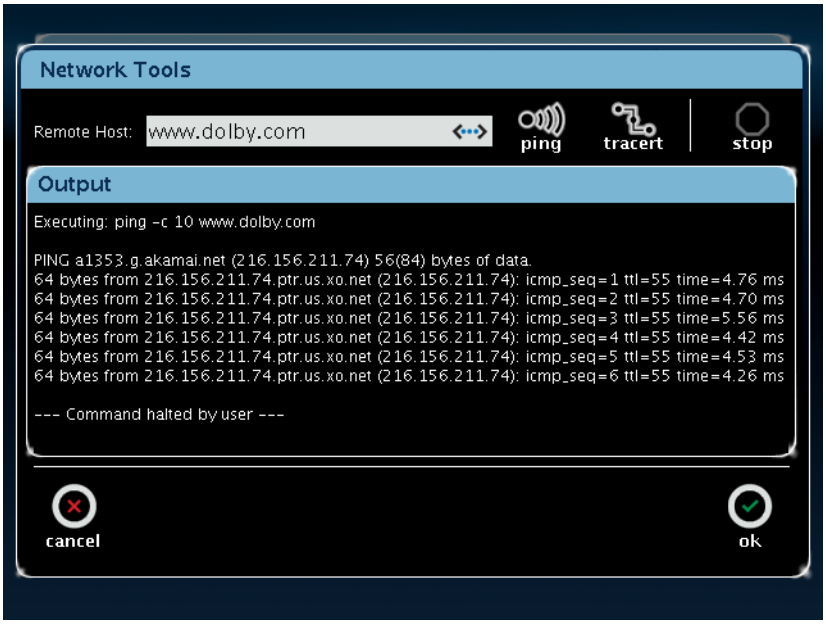

Network Tools
Remote Host:
www.dolby.com
ping
tracert
stop
Output
Executing: ping -c 10 www.dolby.com
PING a1353.g.akamai.net (216.156.211.74) 56(84) bytes of data.
64 bytes from 216.156.211.74.ptr.us.xo.net (216.156.211.74): icmp_seq=1 ttl=55 time=4.76 ms
64 bytes from 216.156.211.74.ptr.us.xo.net (216.156.211.74): icmp_seq=2 ttl=55 time=4.70 ms
64 bytes from 216.156.211.74.ptr.us.xo.net (216.156.211.74): icmp_seq=3 ttl=55 time=5.56 ms
64 bytes from 216.156.211.74.ptr.us.xo.net (216.156.211.74): icmp_seq=4 ttl=55 time=4.42 ms
64 bytes from 216.156.211.74.ptr.us.xo.net (216.156.211.74): icmp_seq=5 ttl=55 time=4.53 ms
64 bytes from 216.156.211.74.ptr.us.xo.net (216.156.211.74): icmp_seq=6 ttl=55 time=4.26 ms
--- Command halted by user ---
cancel
ok

Figure 2-9 Network Tools Ping

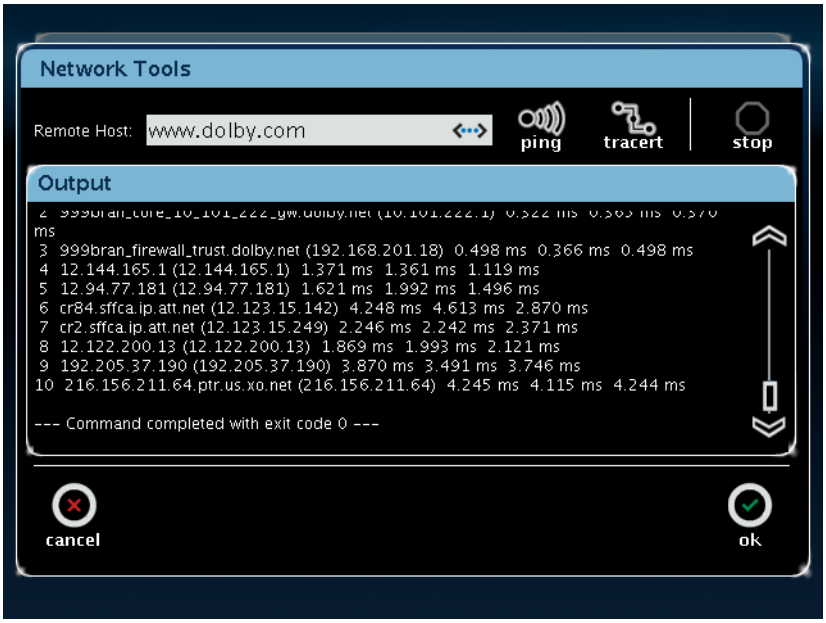


Figure 2-10 Network Tools Trace Route

12. Press **OK** in the **Network Tools** dialog box.

13. Press the right arrow at the bottom of the **Network Information** screen.

    The **Date & Time Information** screen appears, as shown in Figure 2-11. This screen displays the current date and time settings.

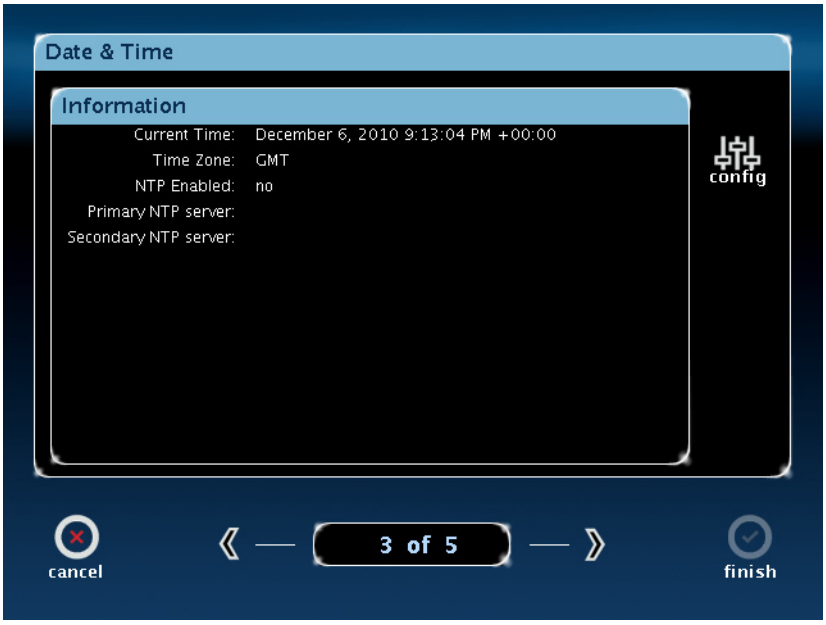


Figure 2-11 Date and Time Information Screen

14. Press **config** in the **Date & Time Information** screen.

    The **Time Configuration** dialog box appears, as shown in Figure 2-12. In this screen, you can set up an NTP configuration or enter the date and time manually.

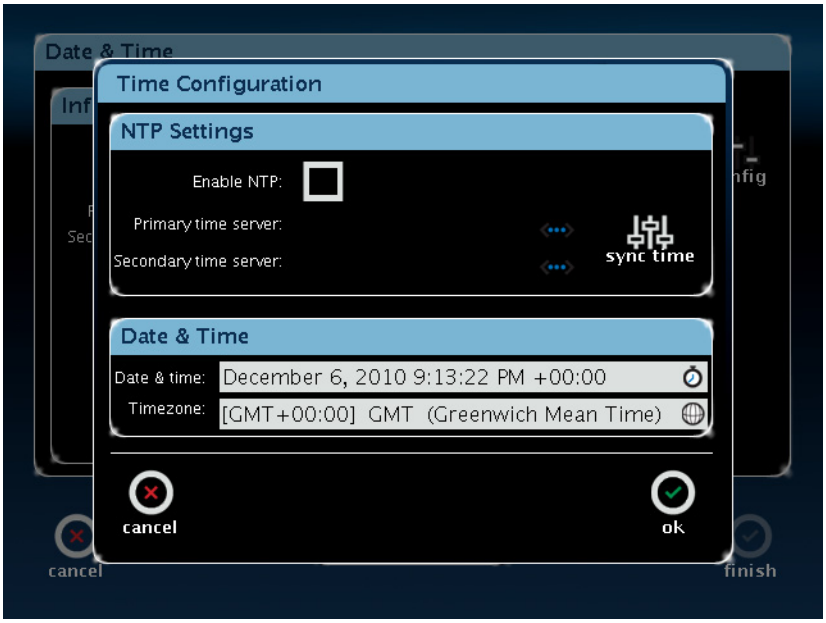


Figure 2-12 Time Configuration

15. If you want to use a Network Time Protocol (NTP) server, press the **NTP** box. If not, follow steps 18–22 to enter the date and time and your time zone.

    The **Primary time server** and **Secondary time server** (optional) fields appear for the NTP setup.

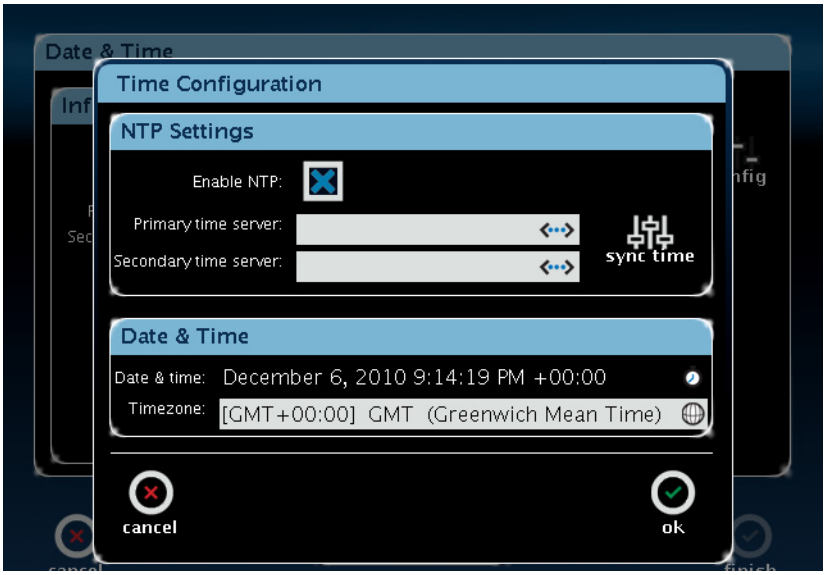


Figure 2-13 NTP Settings Fields

16. Enter the desired NTP servers using the displayed keypad, and press **sync time**.

    Your NTP settings appear in the **Date and Time Information** screen (shown in Figure 2-11).

17. After setting up NTP, follow steps 20–22 to enter your time zone.
18. To set the date and time manually, press the **Date & Time** field.

    The **Set Server Date/Time** screen appears, as shown in Figure 2-14.

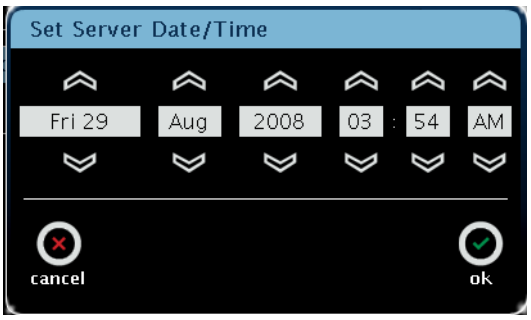


Figure 2-14 Set Server Date/Time Screen

19. Press the up and down arrows above and below each field to set the server date and time, then press **ok**.

20. After setting up NTP or entering the date and time manually, press the **Server Time Zone** field.

    The **Select Region** screen appears, as shown in Figure 2-15.

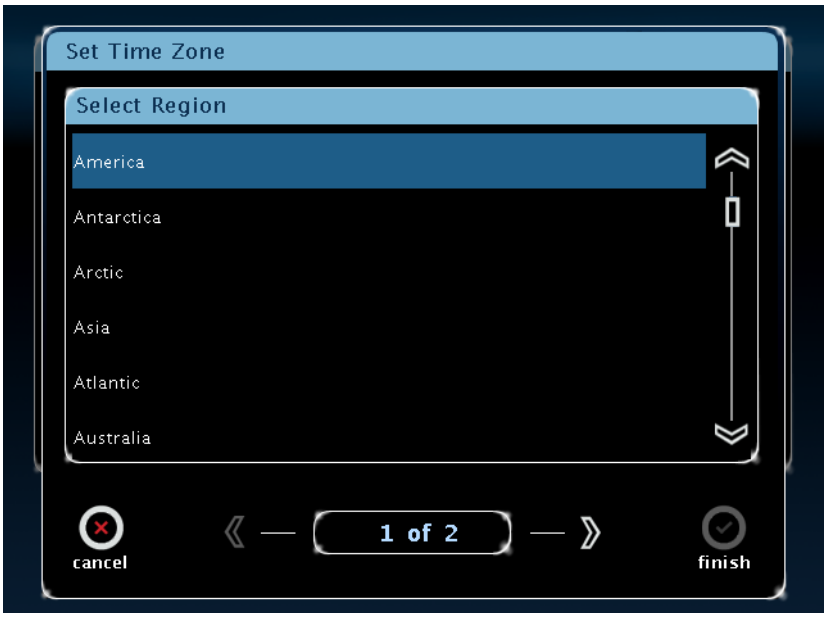


Figure 2-15 Select Region Screen

21. Press on your region, then press the right arrow.

    The **Select City or Zone** screen appears for your region, as shown in Figure 2-16.

    You need to select your closest city to ensure that submitted work orders run at the scheduled time.

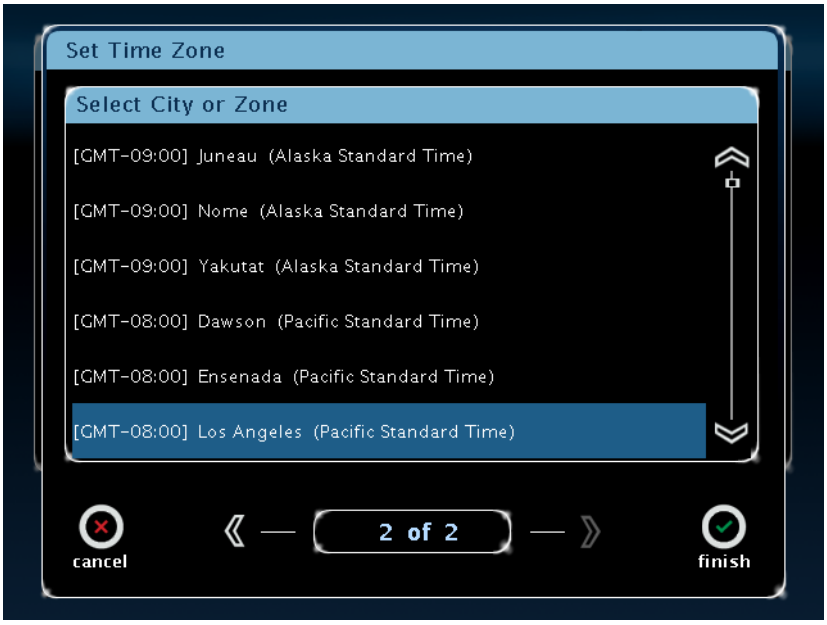


Figure 2-16 Select City or Zone Screen

22. Press on your closest city, then press **finish**.

    The **License** screen appears. This screen displays the unit's **Serial Number** and user personal identification number (**PIN**). Note these two numbers—you'll need them to license your unit for operation.

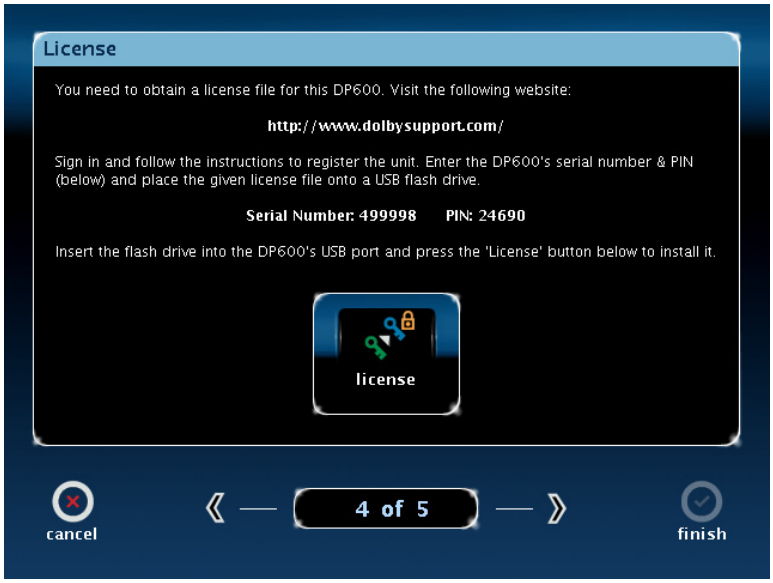

License
You need to obtain a license file for this DP600. Visit the following website:
http://www.dolbysupport.com/
Sign in and follow the instructions to register the unit. Enter the DP600's serial number & PIN (below) and place the given license file onto a USB flash drive.
Serial Number: 499998
PIN: 24690
Insert the flash drive into the DP600's USB port and press the 'License' button below to install it.
license
cancel
4 of 5
finish

Figure 2-17 License Screen

23. Locate the USB flash device in the DP600 packing kit, and insert it into a PC with Internet access.
24. Open a Web browser and go to www.dolbysupport.com.
25. If you have previously registered, simply log in.
26. If you are a new user, please take a few moments to register.

27. Once logged in, select **Product Registration** on the Dolby Support home page, as shown in Figure 2-18.

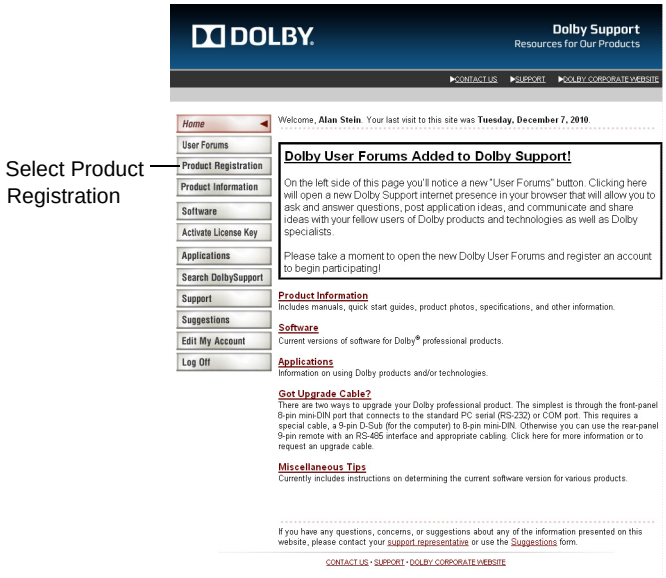

Select Product Registration
DOLBY
Dolby Support
Resources for Our Products
▶CONTACT US ▶SUPPORT ▶DOLBY CORPORATE WEBSITE
Home
User Forums
Product Registration
Product Information
Software
Activate License Key
Applications
Search DolbySupport
Support
Suggestions
Edit My Account
Log Off
Welcome, Alan Stein. Your last visit to this site was Tuesday, December 7, 2010.
Dolby User Forums Added to Dolby Support!
On the left side of this page you'll notice a new "User Forums" button. Clicking here will open a new Dolby Support internet presence in your browser that will allow you to ask and answer questions, post application ideas, and communicate and share ideas with your fellow users of Dolby products and technologies as well as Dolby specialists.
Please take a moment to open the new Dolby User Forums and register an account to begin participating!
Product Information
Includes manuals, quick start guides, product photos, specifications, and other information.
Software
Current versions of software for Dolby® professional products.
Applications
Information on using Dolby products and/or technologies.
Got Upgrade Cable?
There are two ways to upgrade your Dolby professional product. The simplest is through the front-panel 8-pin mini-DIN port that connects to the standard PC serial (RS-232) or COM port. This requires a special cable, a 9-pin D-Sub (for the computer) to 8-pin mini-DIN. Otherwise you can use the rear-panel 9-pin remote with an RS-485 interface and appropriate cabling. Click here for more information or to request an upgrade cable.
Miscellaneous Tips
Currently includes instructions on determining the current software version for various products.
If you have any questions, concerns, or suggestions about any of the information presented on this website, please contact your support representative or use the Suggestions form.
CONTACT US · SUPPORT · DOLBY CORPORATE WEBSITE

Figure 2-18 Select Product Licensing on Dolby Support Home Page

The **Product Registration** page appears, as shown in Figure 2-19.

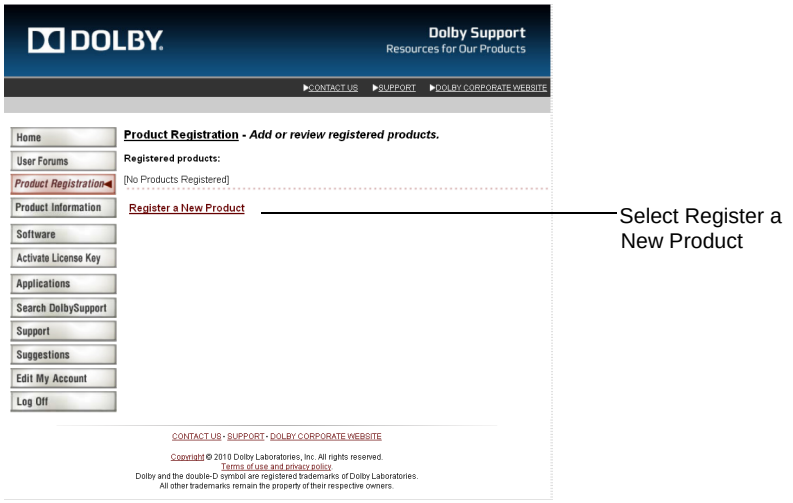


Figure 2-19 Get New License File Page

28. Select **Register a New Product**.
    The **Registered products** page appears, as shown in Figure 2-20.

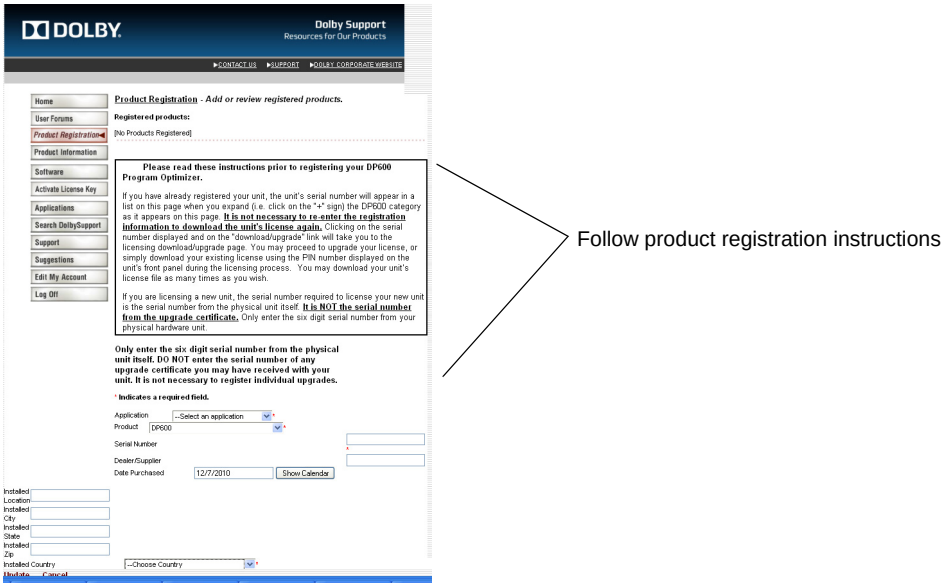


Figure 2-20 Registered Products Page

29. Follow the instructions on the screen for new units and for registered units. For new units enter the required information in all of the fields (the unit's **Serial Number** is displayed on the DP600 touch screen, as shown in the example in Figure 2-17).
    Fields marked with an asterisk (*) are required.
30. Select **Update** at the bottom of the page to display the licensing **download/upgrade link**.
31. Click on the licensing **download/upgrade** link.
32. Download your license file to the USB flash device inserted in your PC.
    This file is the license for your DP600 system (including any upgrades).
33. Remove the USB flash device from your PC, and insert it into one of the DP600 USB ports.
    It will take a few seconds for the DP600 to recognize the license.
34. Press the **license** button in the **License** screen.
    A confirmation prompt informs you that the license installed successfully.

Note: If the system does not install the license, press the **license** button again. The system may take a few seconds to recognize the inserted USB flash device containing the license file.

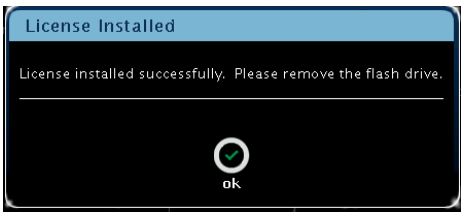


Figure 2-21 License Confirmation Prompt

35. Press **ok**.

    The **Finished!** screen appears.

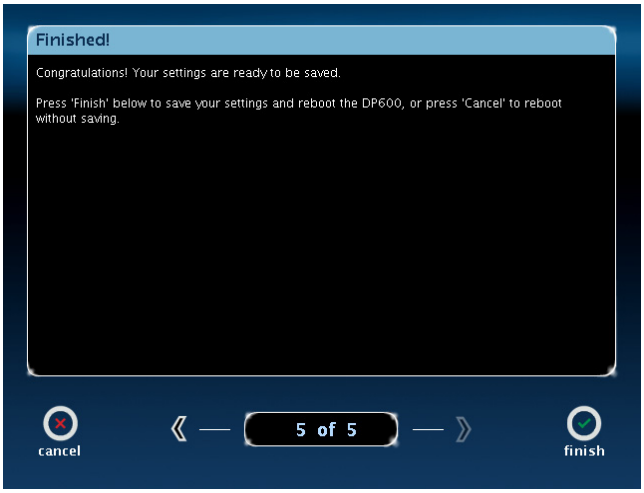

Finished!
Congratulations! Your settings are ready to be saved.
Press 'Finish' below to save your settings and reboot the DP600, or press 'Cancel' to reboot without saving.
cancel
5 of 5
finish

Figure 2-22 Finished! Screen

36. Press **finish**.

    The DP600 setup is now completed, and the system automatically reboots. During the reboot process, remove any discs in the CD/DVD-ROM drive, as the system attempts to boot from any inserted disc. If an installation disc is inserted, the system begins a new installation.

    You can repeat the previous steps for each license you want to download and each upgrade you want to apply to your license.

Note: If you are a DP600 system administrator, go to Appendix C for instructions on setting up user IDs and access levels and performing other administrative tasks.

2.2.1 DP600 Home Screen

After you complete the DP600 setup, the unit automatically reboots and the DP600 **home** screen appears, as shown in Figure 2-23.

This screen displays the date and time at the upper right corner. The system status in the right column shows icons indicating the current status of the **server**, network (**net**), and **disk** (for each installed hard drive). A green happy face icon indicates correct functionality. A red sad face icon indicates a problem; if you see this icon, you need to check for more details, as described in Section 2.2.2.

The **work orders** and **reports** icons also appear in the **home** screen. You'll learn how to use the work order and report functions later in this chapter, as described in Section 2.4.

Note the lock icon next to the date and time. When this icon is in the locked position, the system is in view-only mode. In this mode, you can display some information and check the system status, but cannot operate the system or perform administrative functions. To operate the system, obtain a **USER** level ID from your DP600 system administrator. System administrators can also perform all **USER** level functions.

To gain access to specific functions, press the lock icon to log in with the appropriate user-level ID and password. When you log in, the lock icon changes to the unlocked position and your ID appears below the time and date, as shown in Figure 2-42.

After 30 minutes of idle time, the system returns to the locked position, but you should log out by pressing the lock icon and pressing **logout**—to lock the system—whenever you're done working in the unlocked mode.

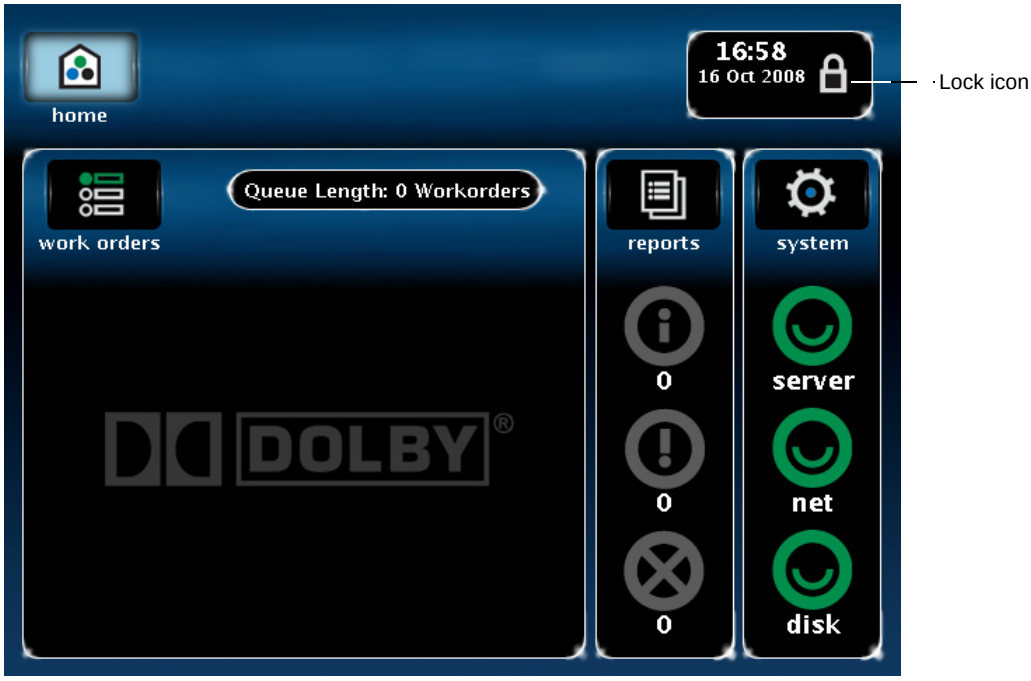


Figure 2-23 DP600 Front-Panel Home Screen

2.2.2 Using the System Screen

The **system** screen allows you to check the system information and status. In addition, if you have an **ADMIN** level ID, you can also reconfigure the network and date and time, upgrade your license, archive and delete files, and reboot or shut down the system.

Checking the System Information and Status

To check the system information and status:

1. Press **system**

at the upper-right corner of the **home** screen.

   When the system is locked, the **system** screen appears, as shown in the example in Figure 2-24. In this state, you can access only the **info** and **status** functions. The **config**, **upgrade**, **maintenance**, and **power** functions have locks displayed, indicating that you must log in with an **ADMIN** user ID and password to access the respective functions, as described in Appendix C. The **info** and **status** functions do not require a password.

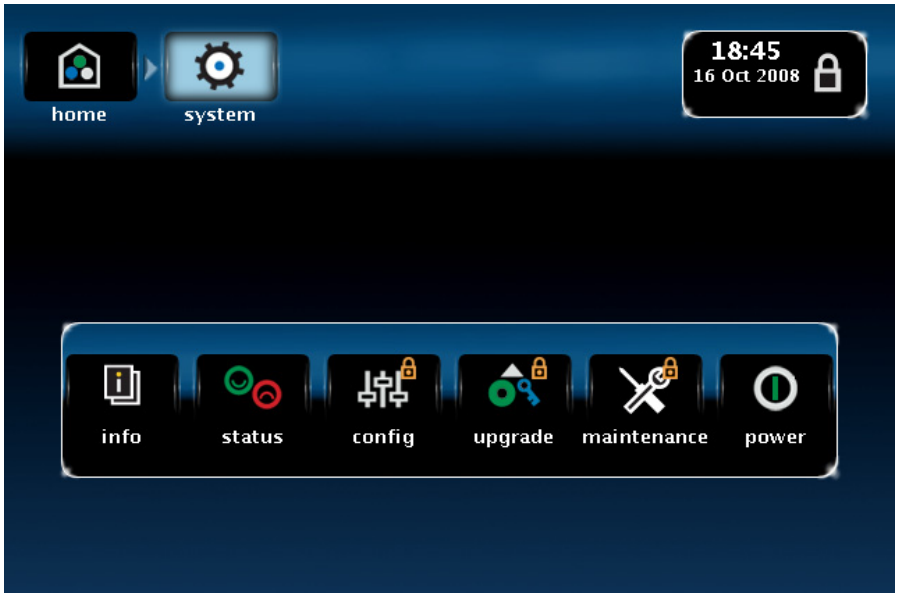


Figure 2-24 System Screen

2. Press **info**

in the **system** screen.

   The **info** screen appears, as shown in Figure 2-25. This screen displays the current **Software Information** and the **Licensed Configurations**.

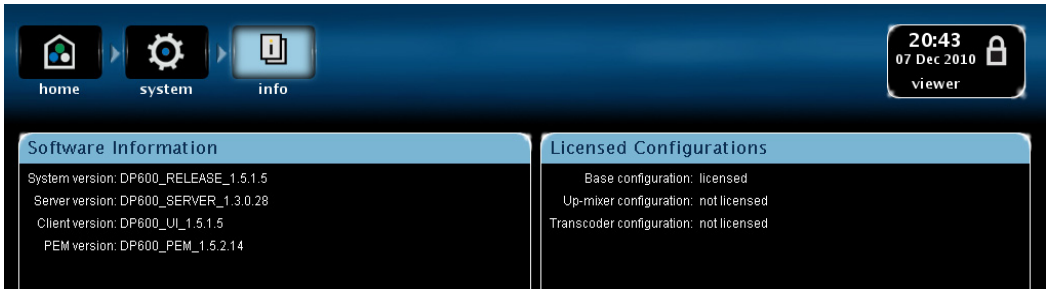


Figure 2-25 Info Screen

3. Press **status** in the **system** screen.

   The **status** screen appears, as shown in Figure 2-26. In this screen, you can check the **volumes** and **disks** status by pressing the respective icons.

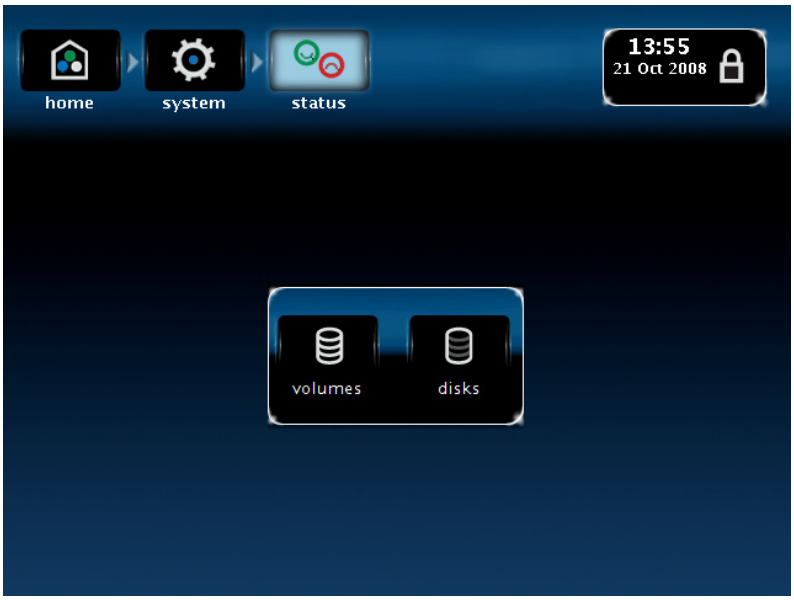


Figure 2-26 Status Screen

4. Press **volumes** in the **status** screen.

   The **volumes** screen appears, as shown in Figure 2-27, which displays the storage status for each disk volume. When any volume exceeds 90% capacity, the disk happy face on the **Home** screen turns to a sad face. In addition to the system's internal storage, this screen displays the status of your work order source and destination external storage. (For more information on source and destination, see page 35 and page 36.)

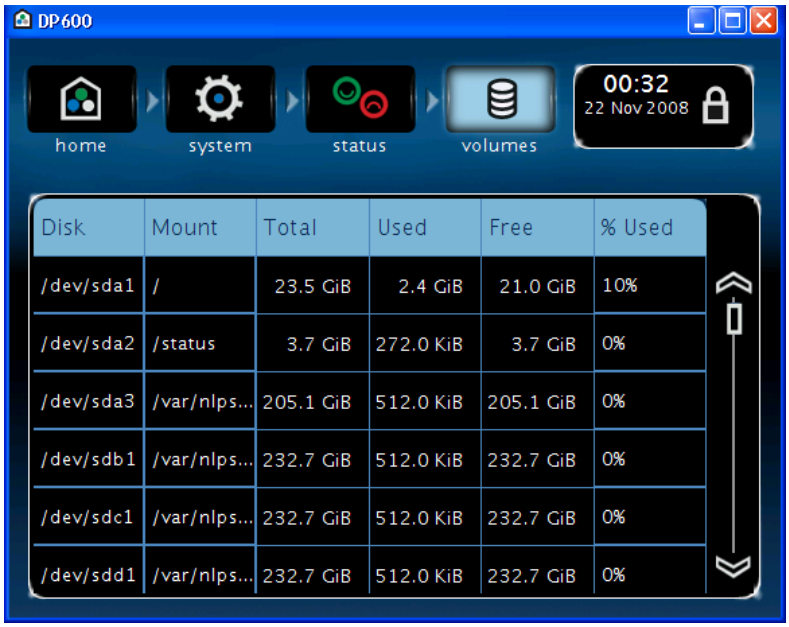


Figure 2-27 Volumes Screen

5. Press **disks** in the **status** screen.

   The **disks** screen appears, which displays the status for each RAID drive, as shown in Figure 2-28.

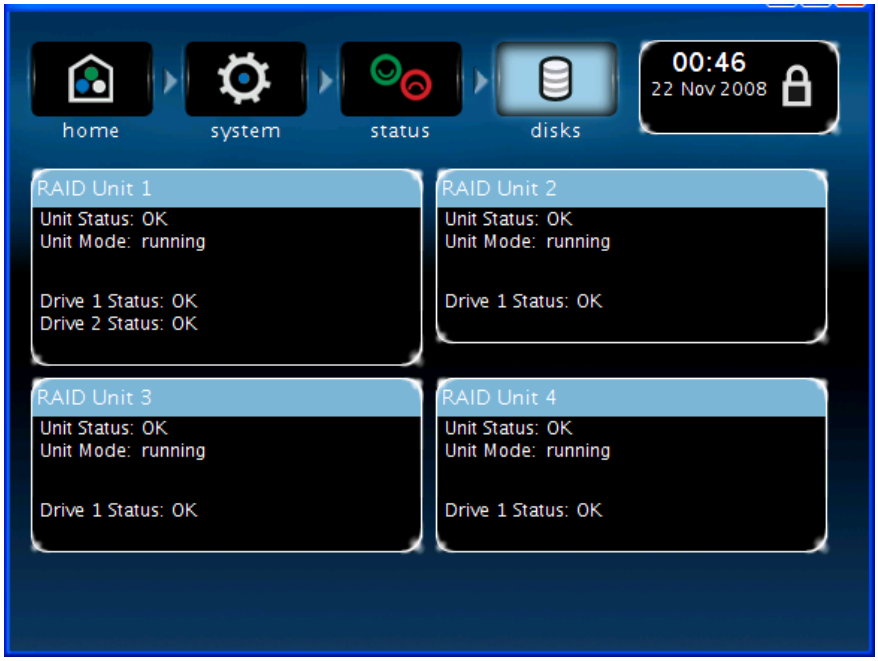


Figure 2-28 Disks Screen

2.3 Using the DP600 Remote Client Software

To process audio using the DP600, you need to use the Dolby DP600 Remote Client software (also referred to as "DP600 Client" or "Client"). With this application, you can define and run an operation we call a work order. The DP600 Client runs on your Microsoft® Windows® PC. This application looks similar to the front-panel touch screen, but provides more user control functions. For example, with the Client, you can:

- Add and configure work orders
- Run work order profiles to analyze dialogue levels, perform dialogue normalization, and encode, decode, transcode or convert, and upmix audio files
- Export work order reports

2.3.1 Understanding Work Orders

Currently, there are ten types of work orders:

- Standard
- Pinnacle™ Standard
- Omneon™ Standard (for use with Omneon servers only)
- Multi-File Standard
- Mono-only Standard
- Hot Folder
- Pinnacle Hot Folder

- Omneon Hot Folder (for use with Omneon servers only)
- Grass Valley™ Hot Folder
- Mono-only Hot Folder

Standard, Pinnacle Standard, and Omneon Standard Work Orders

These types of work orders process audio on a file-by-file basis. You specify the path to the source file on your PC or anywhere on the network. You also specify a destination where you want to save the processed file. Pinnacle work orders are designed specifically for Pinnacle Systems® MediaStream server files. Omneon work orders are designed specifically for Omneon server files and are incompatible with other formats.

Multi-File Standard

This type of work order processes multiple files as if they were a single file. The system measures each file for loudness and uses the overall results to apply the same value to each file. You specify the path to the source files on your PC or anywhere on the network. You also specify a destination where you want to save the processed files.

Mono-Only Standard

This type of work order processes audio in mono on a file-by-file basis. Each file represents a single channel of a multichannel program. You specify the path to the source files on your PC or anywhere on the network. You also specify a destination where you want to save the processed file.

Hot Folder Work Order

With this type of work order, you specify the path to a source folder on your PC or network where the audio files you want to process are located. The DP600 periodically looks for files of a specific type in this folder, which is controlled by the work order profile. The work order profile associated with your hot folder also determines how the DP600 processes the files. In addition, you specify the destination where you want to save the processed files. When the DP600 sees the specified file type in the source directory, it processes those files according to the current profile, and then saves the processed files in the destination folder.

Note: You can link only one work order profile with a single hot folder. However, you can create multiple hot folders, each with a different profile.

Pinnacle Hot Folder Work Order

This type of hot folder is designed specifically for Pinnacle MediaStream server files.

Omneon Hot Folder Work Order

This type of hot folder is designed specifically for Omneon server files and is incompatible with other formats.

Grass Valley Hot Folder Work Order

This type of hot folder is designed specifically for Grass Valley Profile® and Profile XP server files.

Mono-Only Hot Folder

The system processes audio in mono on a file-by-file basis. Each file represents a single channel of a multichannel program. You also specify a destination where you want to save the processed files.

Work Order Profile

While the type of work order indicates how the DP600 accesses audio files, the work order profile controls the processing specifications (for example, whether the DP600 performs audio loudness analysis and correction, transcoding and conversion/encoding/decoding, or other actions on the respective audio files).

2.3.2 Running the DP600 Client

To run the Client:

1. Open your browser and go to http://<dp600 server>/, where <dp600 server> is the host name or IP address of the DP600 (for example, http://zico.eng/ or http://10.201.1.88/). After you open the Client for the first time, a shortcut appears on your desktop and in the **Start** > **All Programs** > **Dolby Laboratories** menu.

   Currently we support Windows XP, using Internet Explorer® 6 or later, Firefox® 2 or later, Opera 9 or later, and Safari® 3 or later. Other browsers and operating systems are untested or unsupported.

   The **DP600 Program Optimizer** splash screen appears, as shown in Figure 2-29.

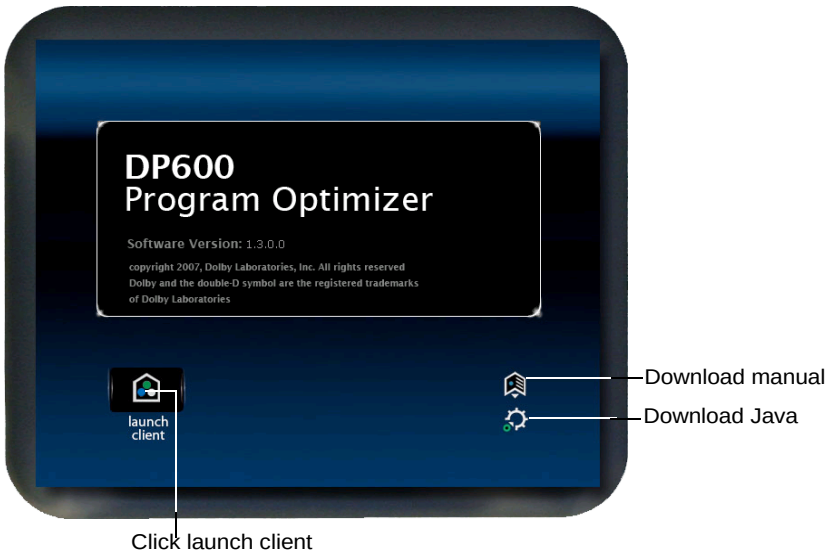


Figure 2-29 DP600 Program Optimizer Splash Screen

2. Click **launch client** in the splash screen.

   Sun Microsystems Java™ Web Start launches, the Client automatically connects to the DP600, and the DP600 Client **home** screen appears, as shown in Figure 2-30. Subsequently, you can start the Client with either the shortcut described above, or by revisiting the DP600 Web page and following the links again.

   If the Client PC does not have the correct version of the Java runtime environment™ (JRE) installed and the Client PC has access to the Internet, the correct version of Java installs automatically. If this fails, then you need to install the JRE manually by clicking the icon on the splash screen or going to www.java.com/en/download/manual.jsp?locale=en&host=www.java.com.

   You can download a copy of the DP600 manual (this manual) by clicking the icon.

   If the current version of Client software is not already installed on the Client PC, the correct version automatically downloads directly from the DP600 (no Internet access required).

   You can install and run the Client from multiple computers simultaneously. Client updates automatically occur each time the Client runs on a specific PC. For this reason, the Client isn't really installed as such. You simply run the application from the DP600, which automatically downloads any necessary files and updates as required.

2.3.3 DP600 Client Home Screen

After launching the DP600 Client, as described in Section 2.3.2, the DP600 Client **home** screen appears on your PC. This screen looks similar to the **home** screen on the front-panel touch screen and you can perform many of the same functions using the Client. You can also perform some additional functions. The Client functions are described on the following pages. When a procedure says “click” something, this means that you can perform the respective function only with the Client. If it says “press or click,” this means you can perform the respective function using the touch screen or the Client. However, to access any of their respective locked areas, you must log in separately on the touch screen and the Client.

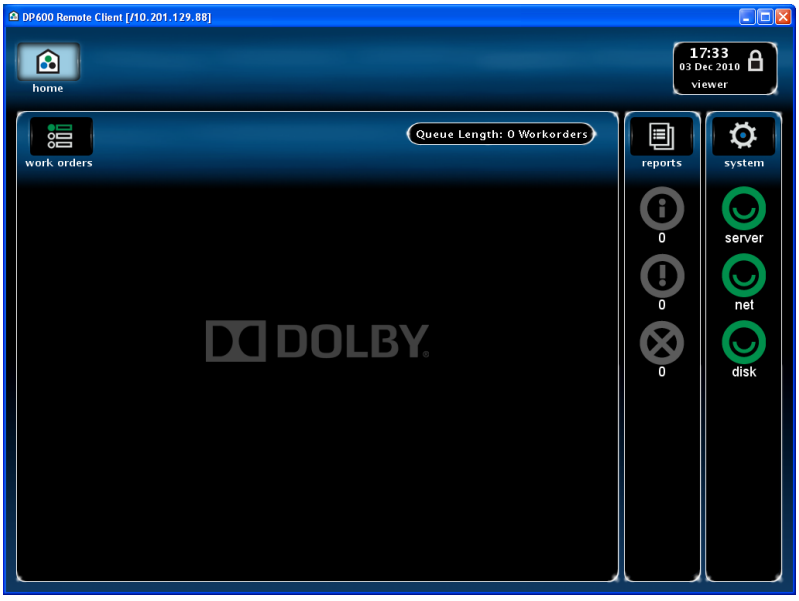


Figure 2-30 DP600 Client Home Screen

2.4 Creating a Work Order

To create a work order:

1. Click **work orders** near the upper left corner of the **home** screen.

Figure 2-31 Displaying the Work Orders Screen

The **work orders** screen appears, as shown in Figure 2-32. In this screen, you can add and configure a work order and perform other related functions.

2. Click **add** at the right side of the **work orders** screen.

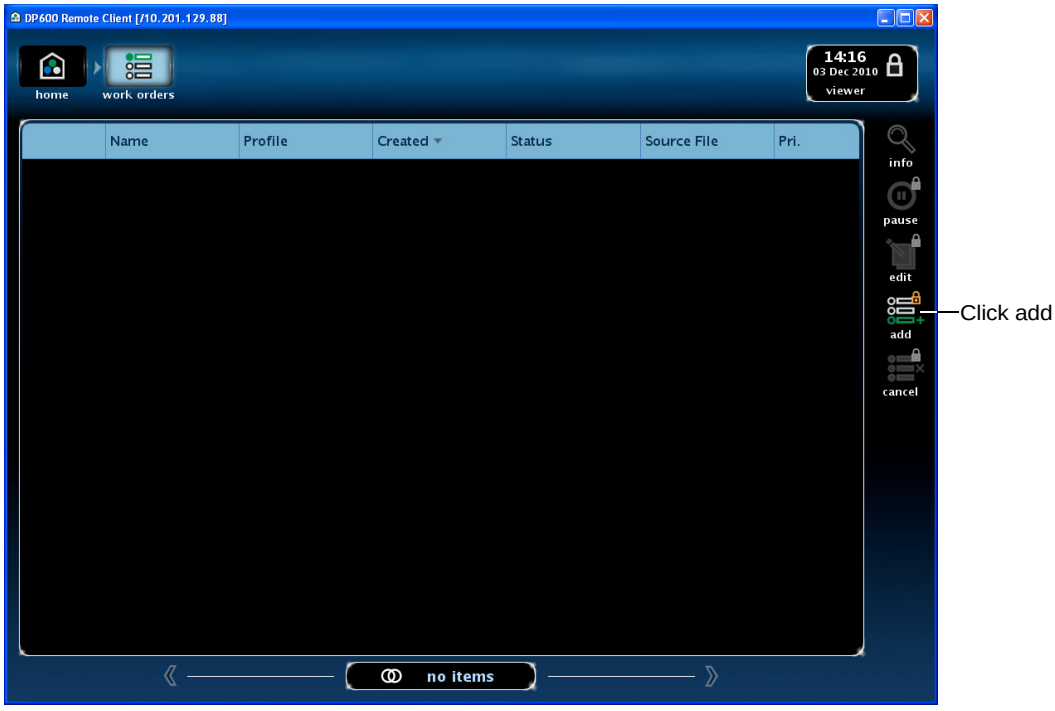


Figure 2-32 Adding a Work Order

The **Login** screen appears, as shown in the example in Figure 2-33.

To add and configure work orders, you need to log in with a **USER** level or **ADMIN** level ID and password. If you don't have an ID and password, contact your system administrator. If your system administrator hasn't set up IDs yet, a default ID and password is provided in Section C.2.

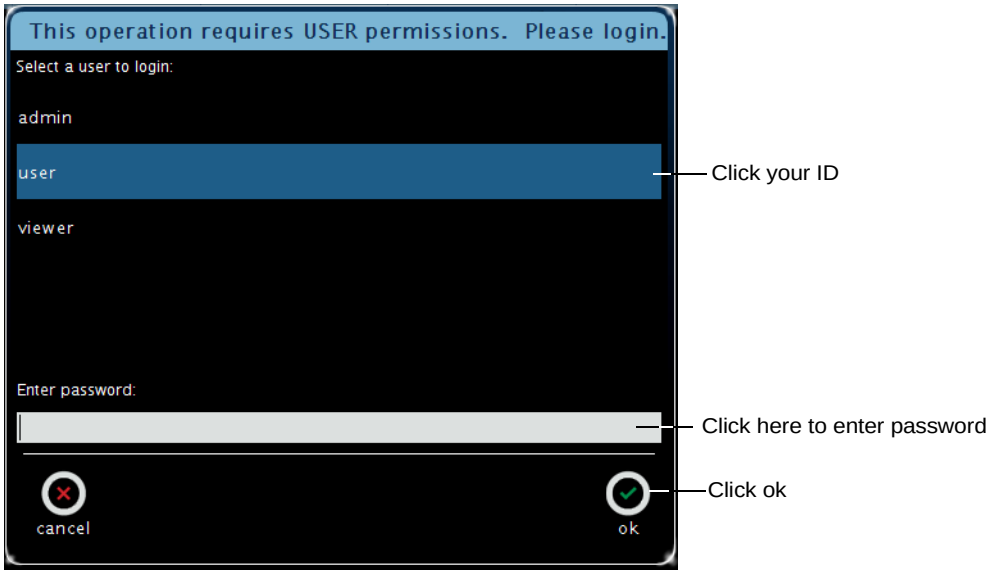


Figure 2-33 Login Screen

3. Click your ID (**USER** or **ADMIN** level required), click in the **Enter password** field, enter your password, and click **ok**.

   The **Add Workorder** screen appears, as shown in Figure 2-34 with the default Standard work order selected. This is the same screen that appears for all types of work orders, except for a Grass Valley Hot Folder, as shown in Figure 2-35.

   In this menu, you can enter information in the displayed fields to configure your work orders. You can also click the **Additional Settings** icon to enter notes and configure additional settings for hot folders.

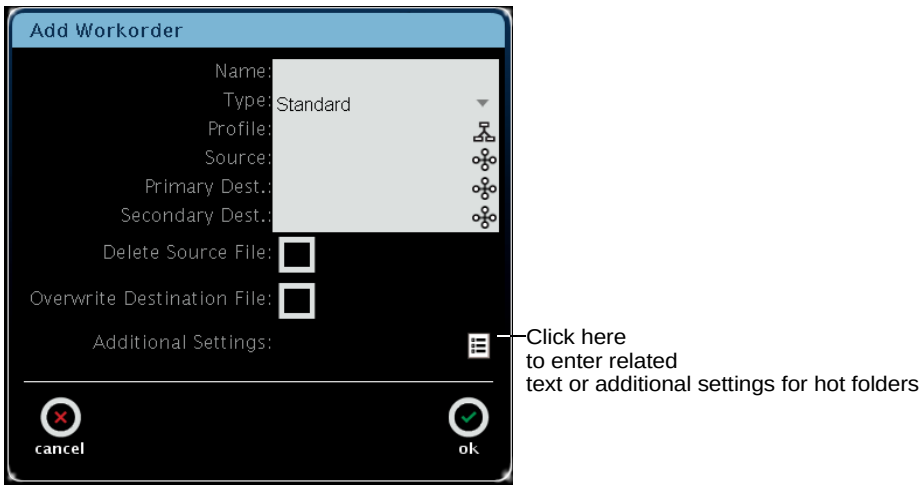


Figure 2-34 Add Workorder Screen (All Work Orders Except Grass Valley Hot Folder)

In the Grass Valley Hot Folder **Add Workorder** screen, you can also enter the **Destination** folder's **IP Address** and **IP Port** port, as shown in Figure 2-35.

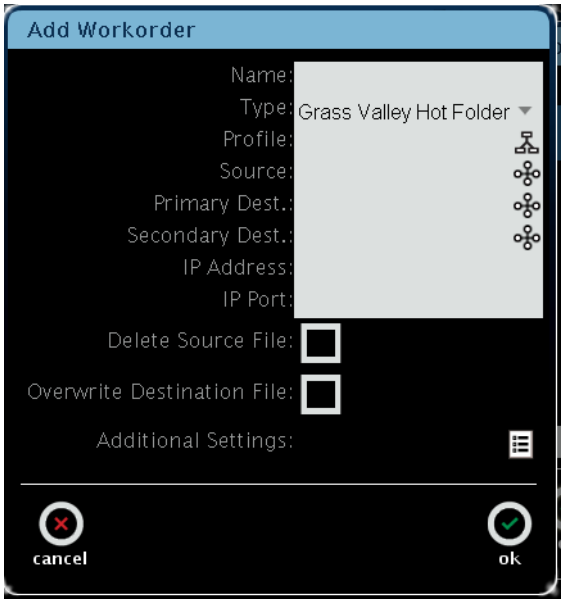


Figure 2-35 Add Workorder Screen (Grass Valley Hot Folder)

To set up your work order:

1. Click the **Name** field, then enter a name for your work order.
2. Click the **Type** field, then select the type of work order you'd like to run (**Standard**, **Pinnacle Standard**, **Omneon Standard**, **Multi-File Standard**, **Mono-only Standard**, **Hot Folder**, **Pinnacle Hot Folder**, **Omneon Hot Folder, Grass Valley Hot Folder or Mono-only Hot Folder**).

Note: **Omneon Standard** and **Omneon Hot Folder** work orders are licensed only for Omneon servers and are incompatible with other platforms.

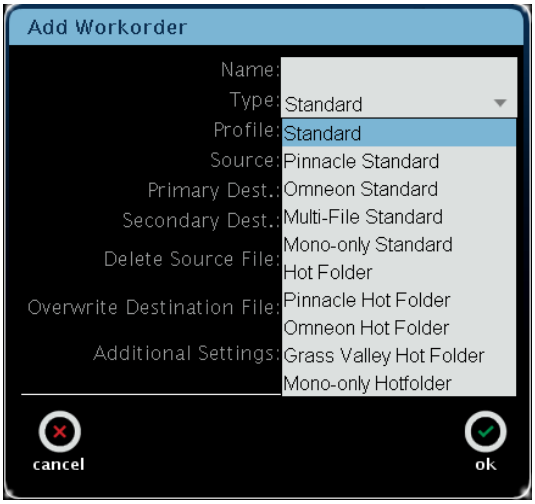


Figure 2-36 Select a Work Order Type Screen

3. Click the **Profile** field.

   The **Profile** menu displays the list of profiles. Use the up and down arrows to scroll through the list. To display only the default profiles, click the **Show Default Profiles** box, as shown in Figure 2-37.

   When you click a profile, a short description of the selected profile appears (for example, **Dolby Digital (.ac3) to Dolby Digital Plus (.ec3)**.

   Profiles that perform loudness correction require a standard DP600, while profiles that perform encoding, decoding, transcoding, and conversion require the enhanced DP600-C. Profiles that perform upmixing, require the DP600 upmixing upgrade.

Note: For detailed descriptions of all the DP600 profiles, see Appendix B. In addition, check the DP600 area of www.dolbysupport.com for periodic profile updates.

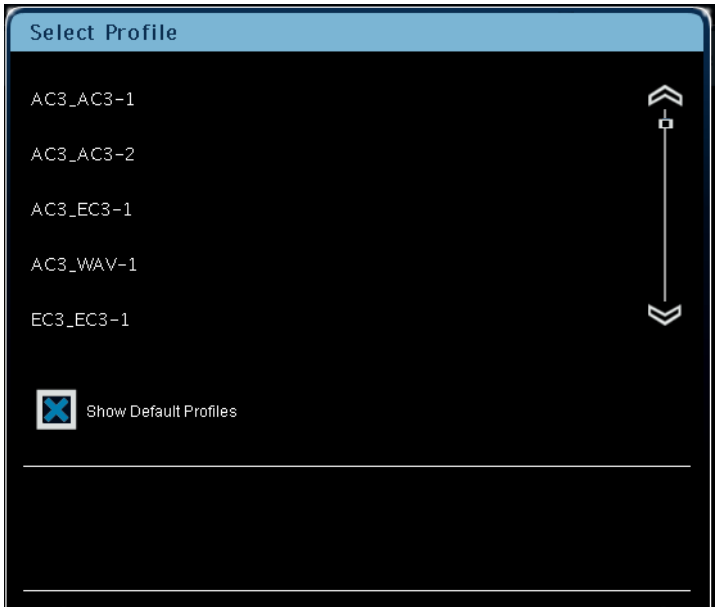


Figure 2-37 Selecting a Work Order Profile (Default Profiles Displayed)

4. Select the work order profile you want to use to process your files, then click **ok**.
5. Click the **Source** field.
   The **Enter Path** screen appears, as shown in Figure 2-38.

Figure 2-38 Enter Path Screen

In this screen, you can enter the path to the files or folder (for a hot folder) that you want to designate for processing. Before entering a path, be sure you're connected to an active network, and then set up a shared folder for all authorized users, as described in Section A.1.

Note: Supported file system protocols include FTP, SAMBA/CIFS, and SFTP.

If you are setting up a **Multi-File Standard**, **Mono-only Standard**, or **Mono-only Hot Folder**, the **Enter Path** screen displays some additional data entry fields, as described in Section A.3.4.

You can enter a path using any of the following methods:

- Enter a URL (directly)
  Type the desired URL in the **URL** field. You must preencode your URL entry, which cannot include the username/password/domain information in the **URL** field (for example, smb://dp600/users/common/hot_folder/). If necessary, you can enter a **Username**, **Password**, and **Domain** (SMB only) in the corresponding fields. After entering the URL, click **ok**.

- Browse to the desired location (not supported on Grass Valley Servers)
  Click **browse** to display the **Select Protocol** screen (if the **URL** field is blank) and select either **Windows Share/SMB** or **FTP or SFTP**, then click the right arrow and (if necessary) enter a **Username**, **Password**, and **Domain** (SMB only) in the **Enter User Credentials** screen. Click the right arrow and enter a path in the **Enter Server Details** screen. Then click **finish** to display the **Select File** screen, click on the desired file or folder and click **ok**. If you want to create a bookmark, click on the desired file or folder in the **Select File** screen, click **add**, then click **ok**. If you click **browse** and the **URL** field is not blank, the system attempts to browse to the entered URL.

- Select a bookmark
  Click on the **Bookmarks** field to display the bookmarks you added in the **Select File** screen (as previously described), then select the desired bookmark to specify the path and click **ok**. When you select a bookmark, it automatically appears in the **URL** field. If necessary, you must still enter a **Username**, **Password**, and **Domain** (SMB only) in the corresponding fields each time you select the bookmark. After selecting the bookmark, you can click **browse** to go to the corresponding location.

Note: For complete details on entering a path using the above three methods, see Section A.3.

6. Use one of the previously described methods to enter the path to the file or folder (for a hot folder) that you want to designate for processing, then click **ok**.

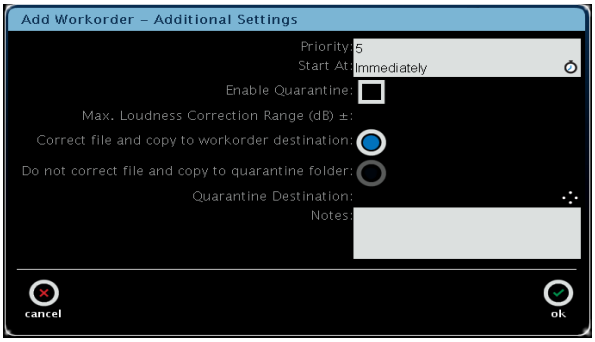
   Click the **Primary Dest.** field.

   The **Enter Path** screen appears. In this screen, you can enter the path to the folder where you want to save the processed files. This screen is identical to the **Enter Path** screen described earlier for the source path.

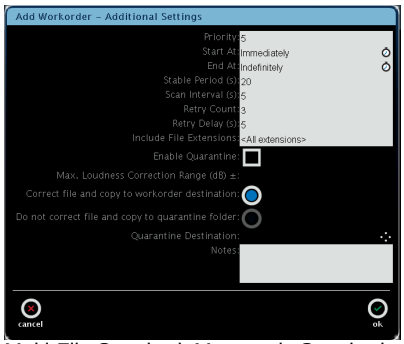
   Optionally, you can enter a path to a second location to save the processed files. To do this, click the **Secondary Dest.** field to display the **Enter Path** screen. This screen is identical to the **Enter Path** screen described earlier for the source path.

7. Click the **Delete Source File** box if you no longer need the file after the system processes the work order. This setting also works in conjunction with the **Enable Quarantine** feature, as described on page 38.
8. Click the **Overwrite Destination File** box if you want to save another file with the same name when the system processes the work order.
9. For a Grass Valley Hot Folder work order, enter the **IP Address** and the **IP Port**.
10. Click the **Additional Settings** icon.

    The **Add Workorder Additional Settings** screen appears, as shown in Figure 2-39 for **Standard**, **Pinnacle Standard**, and **Omneon Standard** work orders and for **Multi-File Standard**, **Mono-only Standard**, and all **Hot Folder** work orders (including **Pinnacle**, **Omneon**, and **Grass Valley** hot folders).



Standard, Pinnacle Standard, and Omneon Standard work orders



Multi-File Standard, Mono-only Standard, and all types of Hot Folder work orders

Figure 2-39 Additional Settings Screens

11. Enter the **Priority** for your work order by typing a numeric value.

    If you want the system to process a work order first in the queue, enter *1*. For numerous work orders with the same priority, the system sets the queue using the **Start At** entries, as explained in step 12.

12. If you want to start your work order immediately, use the default (**Immediately**) in the **Start At** field. If you want to specify a start time for your work order, click on the **Start At** field.

    The **Start At** screen appears, as shown in Figure 2-40.

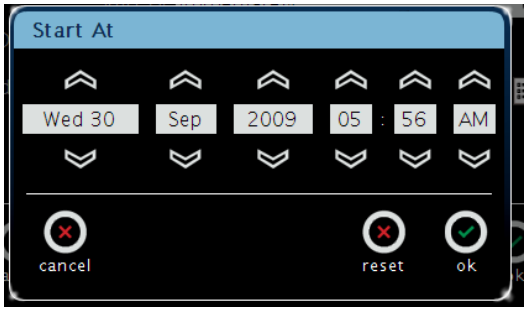


Figure 2-40 Entering the Work Order Start Time

13. Use the up and down arrows to specify a day, month, year, and time when you want to start (run) the work order, then click **ok**. Click **reset** to return to the default (**Immediately**).
14. For **Hot Folder**, **Multi-File Standard**, **Mono-only Standard**, **Pinnacle Hot Folder**, **Omneon Hot Folder**, **Grass Valley Hot Folder**, and **Mono-only Hot Folder** work orders, if you want to run your work order indefinitely, use the default (**Indefinitely**) in the **End At** field.

    If you want to specify a time when the DP600 stops looking for multiple files to process, click the **End At** field to display the **End At** screen (see Figure 2-41).

15. Use the up and down arrows to specify a day, month, year, and time when you want to end the multiple file work order, then click **ok**. Click **reset** to return to the default (**Indefinitely**).

Figure 2-41 Entering the Work Order End Time (For Work Orders with Multiple Files Only)

Following is a description of the other **Additional Settings**:

- **Stable Period**
  Allows you to fine-tune the hot folder/work order activation process for your specific network environment. This applies to configurations where the system copies files from one server into a hot folder the DP600 is monitoring on another server. This is typical in work-flow environments that process an extremely large number of files. In this type of work flow, some remote file systems cannot confirm to any degree of accuracy when a file is completely copied from its source into a hot folder.

  By utilizing the **Stable Period** parameter, the DP600 periodically checks the size of all new files in the hot folder, and waits until the file size stabilizes (does not increase in size). If the file size remains the same for the number of seconds you enter in the **Stable Period** field, then the DP600 activates the work order process on the respective files. The default is **20** seconds. This is a safeguard to ensure the system doesn't begin processing files before they're completely copied into the designated hot folder.
- **Scan Interval**
  Specifies how often the DP600 scans a hot folder for new files to process. The default is **5** seconds.
- **Retry Count**
  Specifies how many times the system tries to process a hot folder work order before the work order fails. The default is **3**.
- **Retry Delay**
  Specifies how many seconds the system waits before retrying to process a hot folder work order. The default is **5** seconds.
- **Include File Extensions**
  Specifies whether to add files to the hot folder that include **All extensions** (the default) or only those files that contain the extensions you enter in this field.
- **Enable Quarantine**
  Enables the quarantine options. Click this box to display the **Max. Loudness Correction Range (dB)+/-** field, where you can enter a value that specifies the acceptable correction range. If the amount of loudness correction would exceed this range, select from the following two options:
  Correct file and copy to workorder destination copies the corrected file to the work order destination directory. Corrected files appear as **Quarantine Finished** in the status area in work order report and log screens.
  Do not correct file and copy to quarantine folder displays the **Quarantine Destination** field. If you click in this field, the **Enter Path** screen appears where you can enter a directory where the system copies an uncorrected file. This screen is identical to the **Enter Path** screen described earlier for the source path. Uncorrected files appear as **Quarantine Failed** in the status area in work order report and log screens.

Note: If you enable **Delete Source File** in the **Add Workorder** screen (see Figure 2-34 and Figure 2-35), the **Additional Settings** destination options allow you to move (instead of copy) the corrected or uncorrected files to the specified work order directory or the quarantine directory.

- **Notes**
  Allows you to enter any related text for the corresponding work order.

16. If applicable, enter any other **Additional Settings** for the respective hot folder.

    After you add a work order, it runs as specified in the **Add Workorder** menu. When a work order is running, the **home** screen displays the progress, as shown in Figure 2-42.

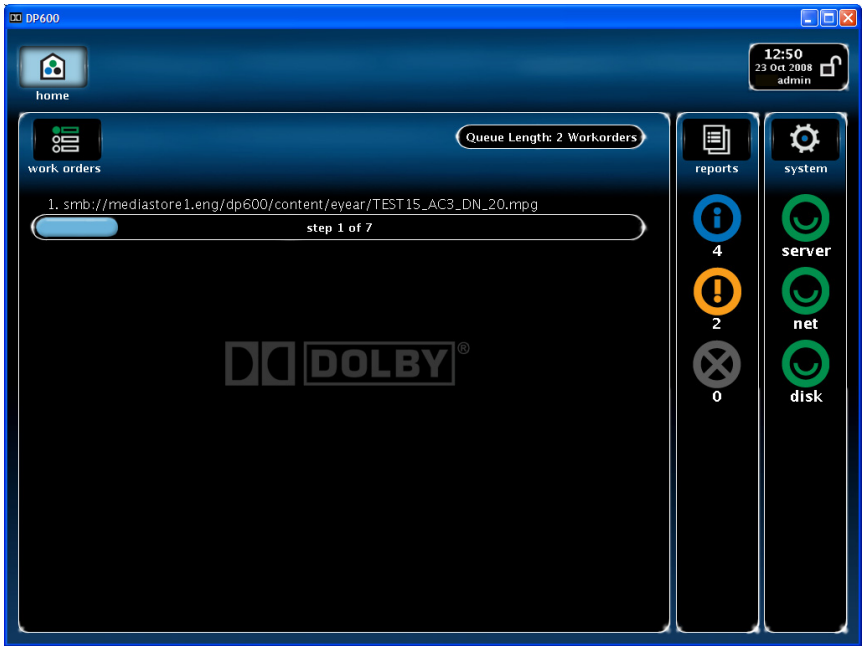


Figure 2-42 Work Order Running as Displayed in Home Screen

After you add a work order, it appears in the **work orders** screen (when you select **work orders** in the **home** screen). In this screen, the work order database displays the names, profiles, creation dates, status, scheduled start times, and source files for all work orders, as shown in Figure 2-43. For hot folder work orders, a folder icon appears on the left side of each entry. To reverse the list from beginning to end (or end to beginning), click the top of any column.

Figure 2-43 Work Orders Screen Displays Database

When you click the filter criteria icon at the bottom of the **work orders** screen (shown in Figure 2-42), the **Workorder Filter Criteria** options appear, as shown in Figure 2-44.

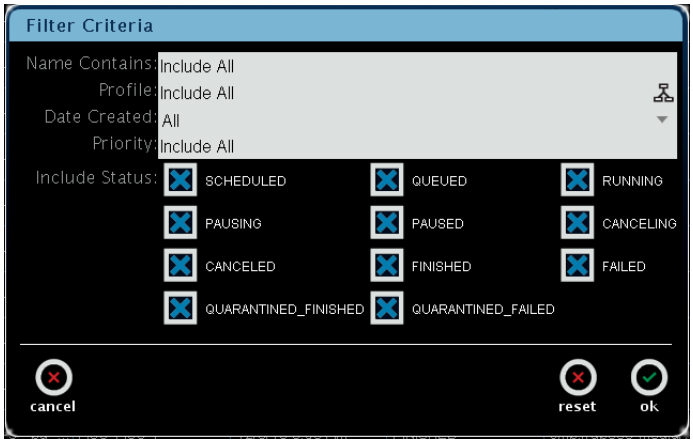


Figure 2-44 Workorder Filter Criteria Screen

Note: For the **Include Status** criteria, **QUARANTINE_FINISHED** is for corrected files and **QUARANTINE_FAILED** is for uncorrected files.

When you configure the filter criteria, you can modify the default information displayed in the **work orders** screen. When you change the defaults, the white filter criteria icon reappears in color and the system displays only the filtered data in the **work orders** screen. When you click **reset**, the filter criteria return to the defaults and the icon reappears in white. Following is a description of each filter criteria option.

Name Contains

This option specifies that the **info** screen displays only work orders that include the keywords you enter in this field. The default is **Include All**, which specifies that all work orders appear.

Profile

This option specifies that the **info** screen displays only work orders that use the selected profile. When you click in this field, the **Select Profile** screen appears, as shown in Figure 2-37. In this field, you can select the desired profile. The default is **Include All**, which specifies that work orders using any profile appear.

Date Created

This option specifies that the **info** screen displays only work orders run during a certain period. When you click in this field, you can select the desired option from the drop-down menu. The default is **All**, which specifies that all work orders appear. If you select **Custom All Dates**, the **Set Date Created Values** appear. When you click in the **Created Since** or **Created Until** fields, you can enter an exact after or before date and time using the displayed controls. The default is **Include All**, which specifies that all work orders appear. Figure 2-45 shows all the options.

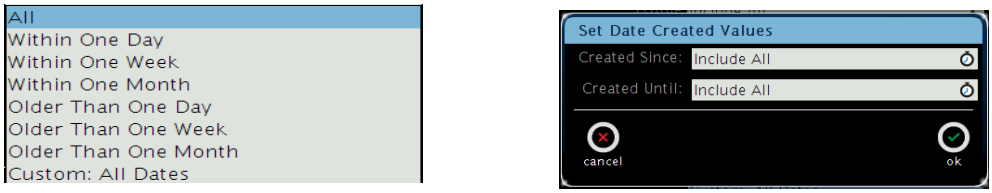


Figure 2-45 Date Created Options

Priority

This option specifies that the **info** screen displays only work orders with a priority above or below a certain number. When you click in the **Priority Above** or **Priority Below** fields, you can select the desired priority from a drop-down menu, as shown in Figure 2-46. The default is **Include All**, which specifies that work orders with any priority appear.

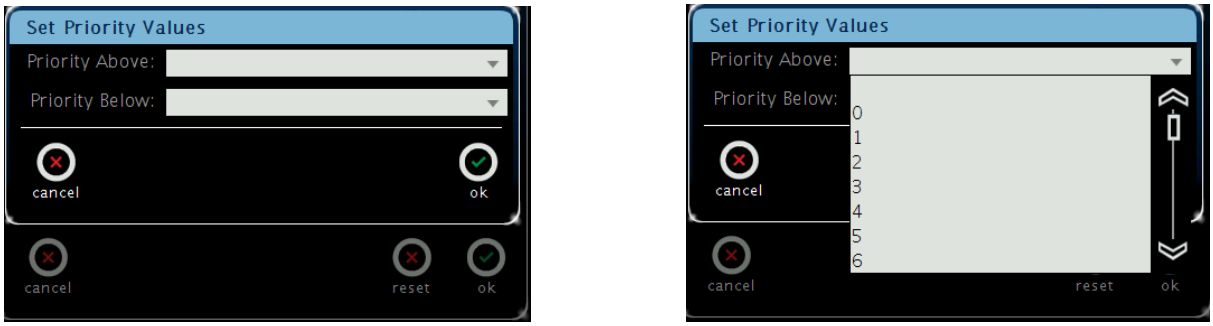


Figure 2-46 Set Priority Values

Include Status

When you check or uncheck these boxes, the system filters the status information accordingly.

In addition to adding work orders and displaying work order information, the **work orders** screen displays other icons, which enable you to display more information, as well as pause, edit, cancel, and delete a selected work order. Following is a description of each of these icons:

When you select a work order in the database, and then press or click the **info** icon, profile, schedule, and reports information appears in the **info** screen, as shown in Figure 2-47.

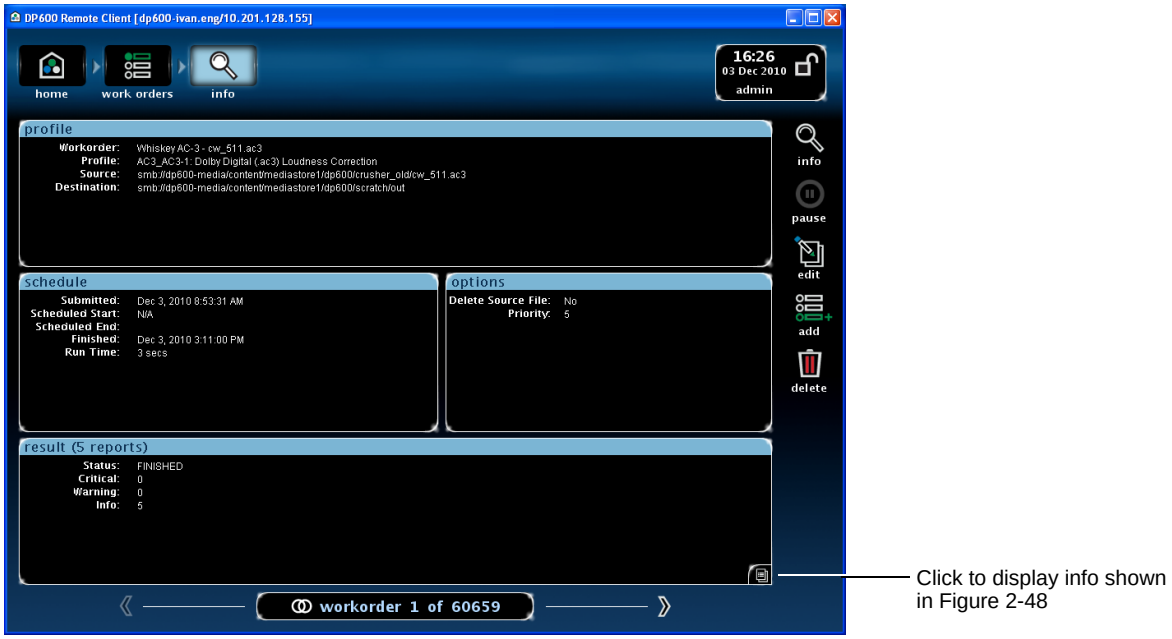


Figure 2-47 Work Orders Info Screen

In addition, if you press or click the **reports** icon in the **info** screen, the corresponding report information appears for the selected work order, as shown in Figure 2-48. This screen displays the following information for each work order:

- Date
- Severity
- Description
- Name of work order

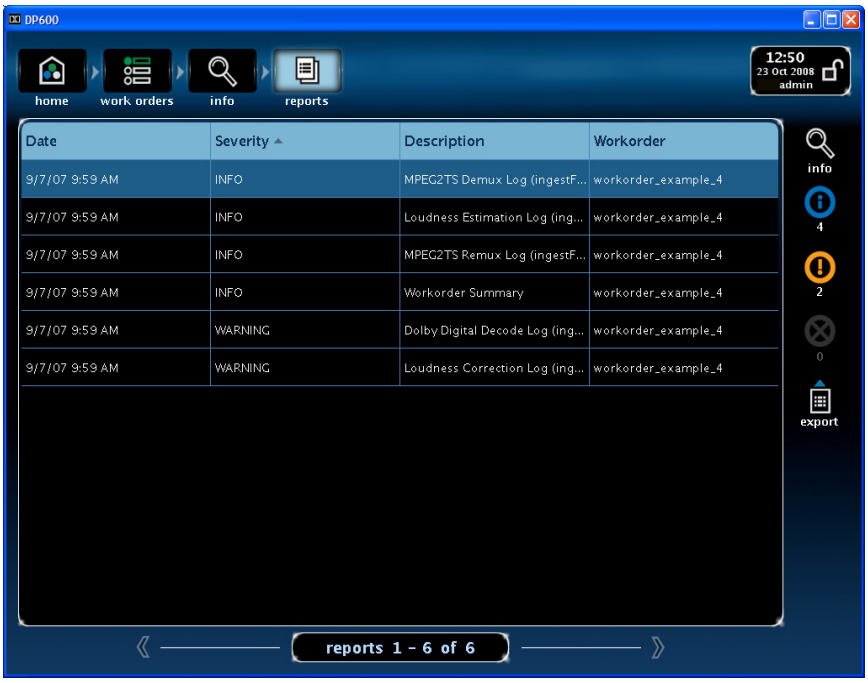


Figure 2-48 Info Reports Screen

On the right side of the **info reports** screen, five icons appear. When you click any of these icons, the screen responds accordingly. Following is a description of each of these icons.

When you press or click on a work order report to select it, and then press or click this icon, the corresponding detailed report appears in the **reports info** screen, as shown in the example in Figure 2-49.

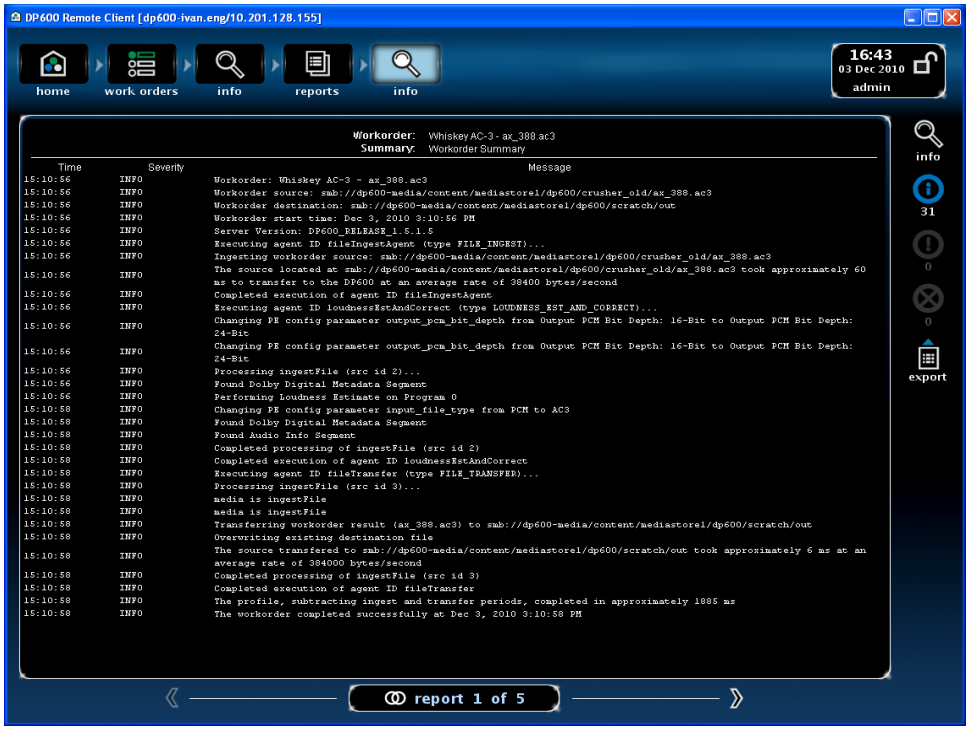

DP600 Remote Client [dp600-ivan.eng/10.201.128.155]
home
work orders
info
reports
info
16:43
03 Dec 2010
admin
Workorder: Whiskey AC-3 - ax_388.ac3
Summary: Workorder Summary
Time Severity Message
15:10:56 INFO Workorder: Whiskey AC-3 - ax_388.ac3
15:10:56 INFO Workorder source: smb://dp600-media/content/mediastorel/dp600/crusher_old/ax_388.ac3
15:10:56 INFO Workorder destination: smb://dp600-media/content/mediastorel/dp600/scratch/out
15:10:56 INFO Workorder start time: Dec 3, 2010 3:10:56 PM
15:10:56 INFO Server Version: DP600_RELEASE_1.5.1.5
15:10:56 INFO Executing agent ID fileIngestAgent (type FILE_INGEST)...
15:10:56 INFO Ingesting workorder source: smb://dp600-media/content/mediastorel/dp600/crusher_old/ax_388.ac3
15:10:56 INFO The source located at smb://dp600-media/content/mediastorel/dp600/crusher_old/ax_388.ac3 took approximately 60 ms to transfer to the DP600 at an average rate of 38400 bytes/second
15:10:56 INFO Completed execution of agent ID fileIngestAgent
15:10:56 INFO Executing agent ID loudnessEstAndCorrect (type LOUDNESS_EST_AND_CORRECT)...
15:10:56 INFO Changing PE config parameter output_pcm_bit_depth from Output PCM Bit Depth: 16-Bit to Output PCM Bit Depth: 24-Bit
15:10:56 INFO Changing PE config parameter output_pcm_bit_depth from Output PCM Bit Depth: 16-Bit to Output PCM Bit Depth: 24-Bit
15:10:56 INFO Processing ingestFile (src id 2)...
15:10:56 INFO Found Dolby Digital Metadata Segment
15:10:56 INFO Performing Loudness Estimate on Program 0
15:10:58 INFO Changing PE config parameter input_file_type from PCM to AC3
15:10:58 INFO Found Dolby Digital Metadata Segment
15:10:58 INFO Found Audio Info Segment
15:10:58 INFO Completed processing of ingestFile (src id 2)
15:10:58 INFO Completed execution of agent ID loudnessEstAndCorrect
15:10:58 INFO Executing agent ID fileTransfer (type FILE_TRANSFER)...
15:10:58 INFO Processing ingestFile (src id 3)...
15:10:58 INFO media is ingestFile
15:10:58 INFO media is ingestFile
15:10:58 INFO Transferring workorder result (ax_388.ac3) to smb://dp600-media/content/mediastorel/dp600/scratch/out
15:10:58 INFO Overwriting existing destination file
15:10:58 INFO The source transfered to smb://dp600-media/content/mediastorel/dp600/scratch/out took approximately 6 ms at an average rate of 384000 bytes/second
15:10:58 INFO Completed processing of ingestFile (src id 3)
15:10:58 INFO Completed execution of agent ID fileTransfer
15:10:58 INFO The profile, subtracting ingest and transfer periods, completed in approximately 1885 ms
15:10:58 INFO The workorder completed successfully at Dec 3, 2010 3:10:58 PM
info
31
0
0
export
report 1 of 5

Figure 2-49 Detailed Report Displayed in Reports Info Screen

When you press or click any of the lower four icons, only work order reports associated with that icon appear. When you press or click again on the same icon, this type of report no longer appears. If you click more than one icon, the respective reports appear, corresponding to all the selected icons. Following is a description of each of these icons.

Selecting this icon displays any work order reports that contain information, but no warnings or errors.

Selecting this icon displays any work order reports that contain warnings.

Selecting this icon displays any work order reports that contain errors.

When you click on a work order report, and then click this icon (displayed only in the DP600 Client), the system saves a text file of the report to the desired location on your PC. A confirmation dialog box appears where you enter the desired name and path, and then click **ok**, as shown in Figure 2-50.

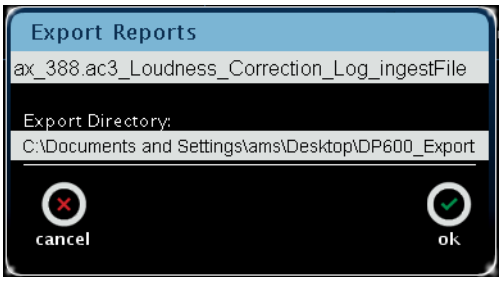


Figure 2-50 Export Report Confirmation

When a work order is running and you press or click this icon, the work order pauses. To resume processing, click or press this icon again.

When you select a work order in the database, and then press or click this icon, the **Edit Selected Workorder** screen appears, as shown in Figure 2-51. In this screen, you can edit your work work order settings. After making the desired changes, you can either select **update** to update the current work order or select **create new** to create a new work order. If you create a new work order, we recommend entering a new name to differentiate it from the original work order. The new work order now appears in the work order database.

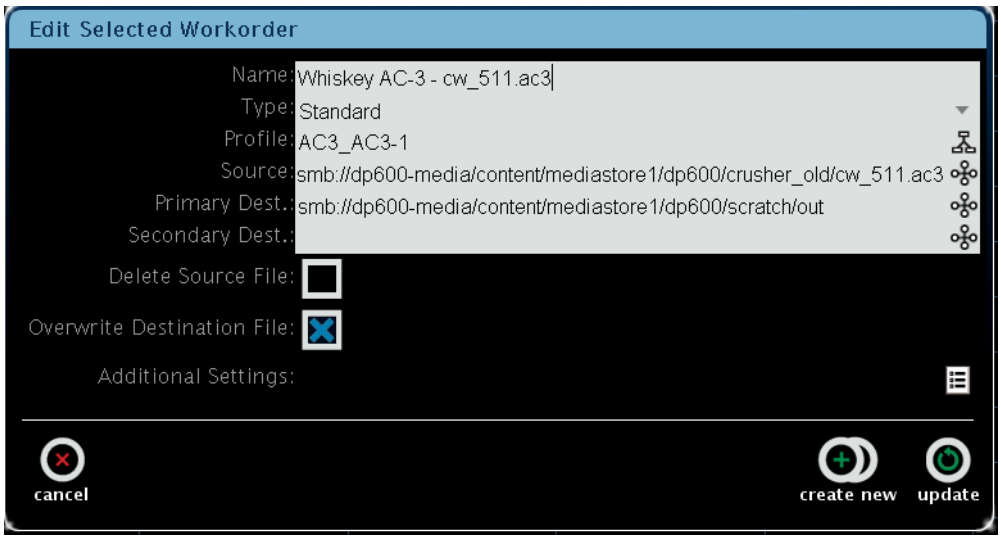


Figure 2-51 Edit Selected Workorder Screen

When you click this icon, the **Add Workorder** screen appears, as shown in Figure 2-34. In this menu, you can set up your work orders, as described in Section 2.4. One of these icons is displayed, depending on the state of the selected work order. If the selected work order is running or scheduled, the **cancel** icon appears and you can press or click this icon to cancel the selected work order. If the selected work order is not scheduled or running, the **delete** icon appears, and you can delete the work order from the database. In either case, a prompt appears, which asks you to confirm your action (cancel or delete). Select **ok** or **cancel** at the confirmation prompt.

Displaying Work Order Reports from the Home Screen

In addition to displaying work order reports from the work order database, you can also access reports from the **home** screen.

To access a report from the **home** screen:

1. Press or click the **reports** icon in the **home** screen, as shown in Figure 2-52.

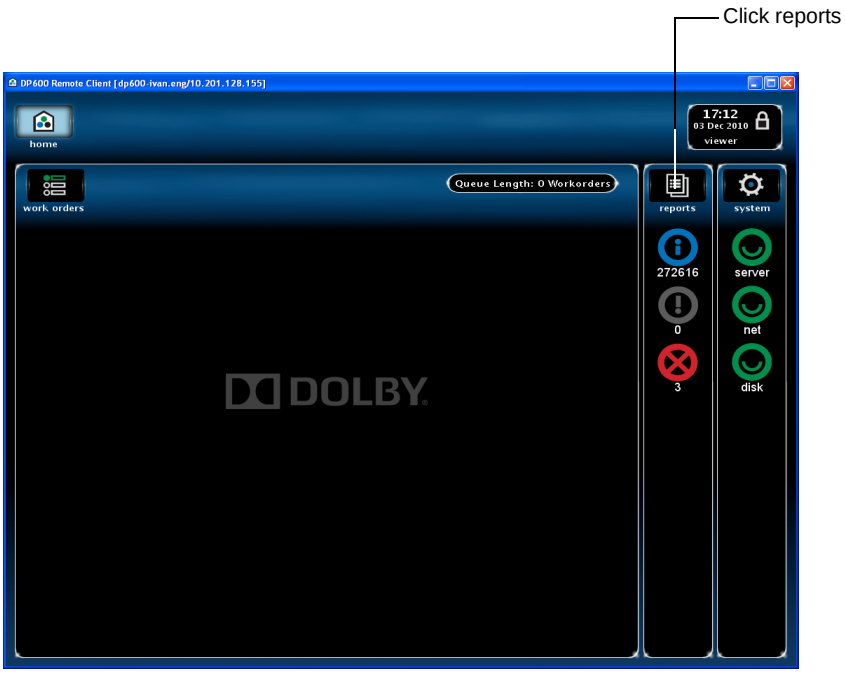


Figure 2-52 Click Reports in Home Screen

The home **reports** screen appears, as shown in Figure 2-53.

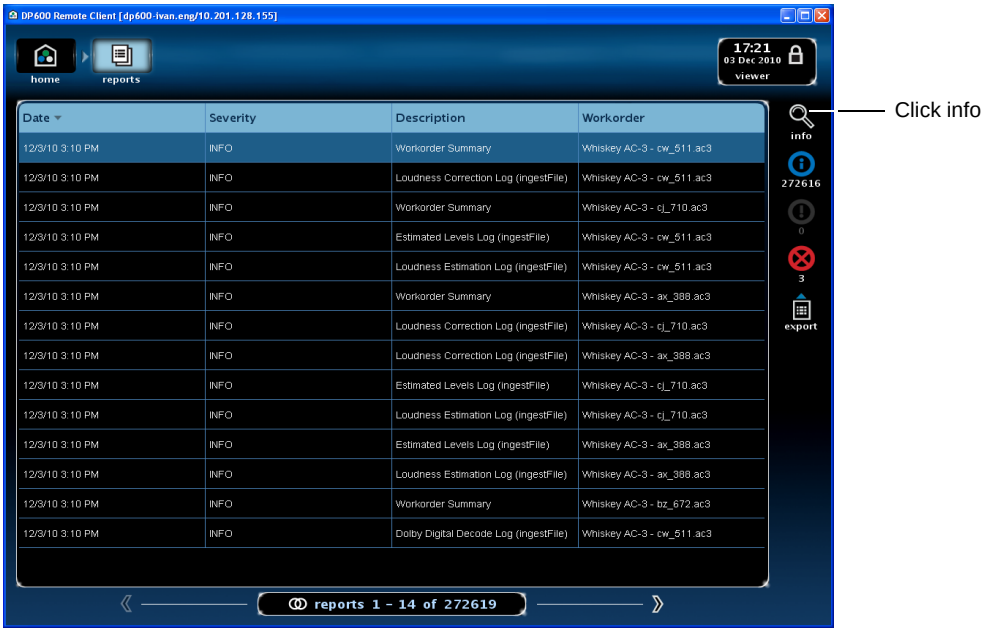


Figure 2-53 Click Info in Home Reports Screen

2. Press or click the desired work order report, then click **info**.
   The respective work order report appears, as shown in Figure 2-54.

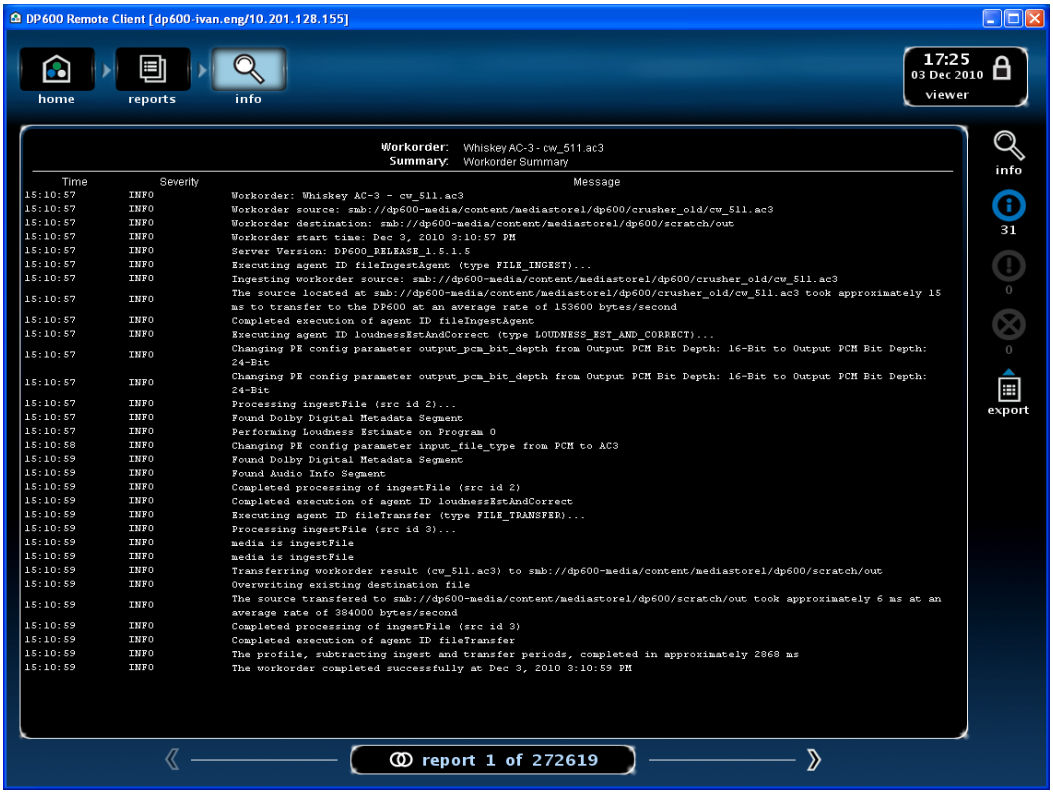

DP600 Remote Client [dp600-ivan.eng/10.201.128.155]
home
reports
info
17:25
03 Dec 2010
viewer
Workorder: Whiskey AC-3 - cw_511.ac3
Summary: Workorder Summary
Time Severity Message
15:10:57 INFO Workorder: Whiskey AC-3 - cw_511.ac3
15:10:57 INFO Workorder source: smb://dp600-media/content/mediastorel/dp600/crusher_old/cw_511.ac3
15:10:57 INFO Workorder destination: smb://dp600-media/content/mediastorel/dp600/scratch/out
15:10:57 INFO Workorder start time: Dec 3, 2010 3:10:57 PM
15:10:57 INFO Server Version: DP600_RELEASE_1_5_1_5
15:10:57 INFO Executing agent ID fileIngestAgent (type FILE_INGEST)...
15:10:57 INFO Ingesting workorder source: smb://dp600-media/content/mediastorel/dp600/crusher_old/cw_511.ac3
15:10:57 INFO The source located at smb://dp600-media/content/mediastorel/dp600/crusher_old/cw_511.ac3 took approximately 15 ms to transfer to the DP600 at an average rate of 153600 bytes/second
15:10:57 INFO Completed execution of agent ID fileIngestAgent
15:10:57 INFO Executing agent ID loudnessEstAndCorrect (type LOUDNESS_EST_AND_CORRECT)...
15:10:57 INFO Changing PE config parameter output_pcm_bit_depth from Output PCM Bit Depth: 16-Bit to Output PCM Bit Depth: 24-Bit
15:10:57 INFO Changing PE config parameter output_pcm_bit_depth from Output PCM Bit Depth: 16-Bit to Output PCM Bit Depth: 24-Bit
15:10:57 INFO Processing ingestFile (src id 2)...
15:10:57 INFO Found Dolby Digital Metadata Segment
15:10:57 INFO Performing Loudness Estimate on Program 0
15:10:58 INFO Changing PE config parameter input_file_type from PCM to AC3
15:10:59 INFO Found Dolby Digital Metadata Segment
15:10:59 INFO Found Audio Info Segment
15:10:59 INFO Completed processing of ingestFile (src id 2)
15:10:59 INFO Completed execution of agent ID loudnessEstAndCorrect
15:10:59 INFO Executing agent ID fileTransfer (type FILE_TRANSFER)...
15:10:59 INFO Processing ingestFile (src id 3)...
15:10:59 INFO media is ingestFile
15:10:59 INFO media is ingestFile
15:10:59 INFO Transferring workorder result (cw_511.ac3) to smb://dp600-media/content/mediastorel/dp600/scratch/out
15:10:59 INFO Overwriting existing destination file
15:10:59 INFO The source transfered to smb://dp600-media/content/mediastorel/dp600/scratch/out took approximately 6 ms at an average rate of 384000 bytes/second
15:10:59 INFO Completed processing of ingestFile (src id 3)
15:10:59 INFO Completed execution of agent ID fileTransfer
15:10:59 INFO The profile, subtracting ingest and transfer periods, completed in approximately 2868 ms
15:10:59 INFO The workorder completed successfully at Dec 3, 2010 3:10:59 PM
info
31
0
0
export
report 1 of 272619

Figure 2-54 Display Report in Home Reports Info Screen

Send Us Your Feedback

If you have a question or a comment regarding this chapter, send us an email.

System Maintenance

This chapter explains how to maintain the Dolby® DP600. The sections that follow show you how to diagnose and repair hard drives and power supplies.

3.1 Maintaining the DP600 Hard Drives

The DP600 has five physical internal hard drives. Drives 1 and 2 are arranged in a RAID 1 configuration to provide protection for the operating system as well as local storage. The remaining three hard drives are configured as separate drives to provide local storage. This configuration of one RAID pair and three separate drives represents four logical drives. There are four bicolor LEDs on the front panel, labeled **1**, **2**, **3**, and **4**. These LEDs indicate the status of the DP600's four logical internal hard drives. The drive LEDs function as follows:

- Off (nonilluminated): Indicates a functional drive with no current disk access activity
- Green: Indicates normal drive activity
- Red: Indicates a drive failure

LED **1** shows the status of the two-drive RAID 1 configuration. The operating system is installed on these mirrored drives to prevent a physical drive failure, resulting in an inoperable system. If either of the mirrored drives fails, the other RAID drive enables the system to operate normally until the failed drive is replaced.

LEDs **2**, **3**, and **4** indicate the status of the other three physical disks. These disks are configured as separate drives and do not have RAID backup capability. If any of these drives fail, the failed drives must be replaced, and any work orders in progress during the failure must be restarted.

If one of the drive LEDs turns red, refer to Table 3-1 to determine which physical drive failed. Typically, the DP600 automatically rebuilds the RAID array when one of the RAID drives has a problem or is replaced (with the power on). During the RAID rebuild process, LED 1 blinks in red in half-second intervals. When the rebuild process is complete, LED 1 stops blinking.

In some instances (for example, if you replace a non-RAID drive), you must initiate the rebuild process manually, as described in Section 3.1.2.

If you replace both RAID drives, you also need to reinstall the DP600 software. In such a case, follow the instructions for a clean installation in Section 3.3. When you reinstall the software, the system automatically synchronizes the two RAID drives, re-creating the original mirrored RAID array (manual rebuild not required).

To replace a drive, follow the instructions in Section 3.1.1.

Table 3-1 shows the LED conditions that specify the failed drive.

Table 3-1 Local Storage LED Conditions

Front-Panel LED	Condition	Failed Physical Drive
1	Solid red	1
1	Blinks in red in two-second intervals	2
1	Blinks in red in half-second intervals	Rebuilding RAID
2	Solid red	3
3	Solid red	4
4	Solid red	5

3.1.1 Replacing a Drive

To replace a DP600 hard drive:

1. Look at the front-panel drive LEDs, then refer to Table 3-1 to determine which drive has failed.

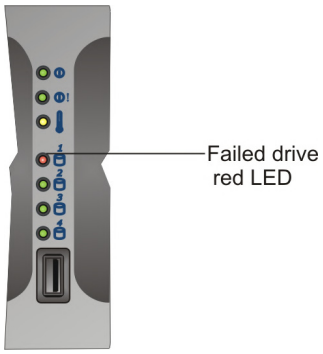


Figure 3-1 Red LED Indicates Failed Disk Drive

2. Swing the touch-screen panel out to the left.

Figure 3-2 Swing Out Touch-Screen Panel

3. Locate the small pry areas on the left side of the front-panel drive cover.

Figure 3-3 Locate Pry Areas Behind Drive Cover

4. Using your fingers or a cushioned screwdriver, gently pry off the drive cover from its left side (the other side is a slotted lock), and remove it from the unit.

   Be careful not to drop it, as the panel is deceptively heavy and will come off suddenly once the locking mechanism disengages.

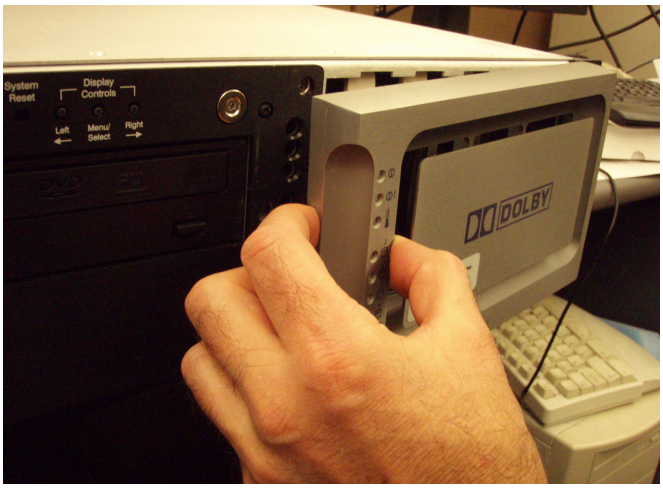


Figure 3-4 Remove the DP600 Drive Cover

5. Use a Phillips screwdriver to loosen the four screws that secure the drive retaining bracket, then slide the screws toward the center of the bracket, and remove the bracket as shown in Figure 3-5.

   As viewed left to right, the first two screws move to the right and the second two screws move to the left.

Caution: When loosening the screws, be sure not to remove them completely from the bracket.

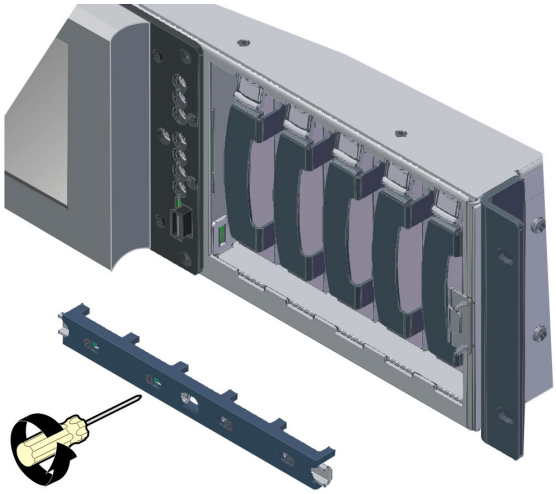


Figure 3-5 Remove the Drive Retaining Bracket

Starting from the left side of the drive cage, the first slot contains physical drive 1 (RAID drive 1). The second slot contains physical drive 2 (RAID drive 2). Starting with the third slot, physical drives 3, 4, and 5 are installed next, in that order. In this example, RAID drive 1 is the failed drive that requires replacement. Figure 3-6 shows how the drives are numbered from left to right (numbers do not appear on the actual unit).

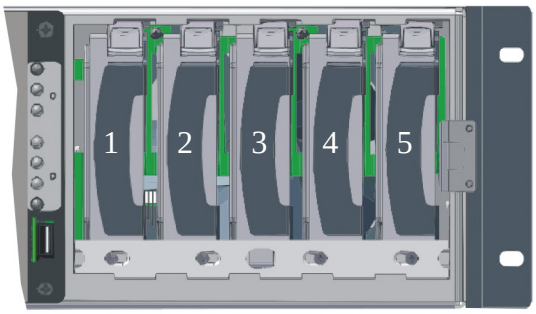


Figure 3-6 Physical Drive Numbers

6. Match the failed drive's number (determined in step 1) with the corresponding physical drive, then grasp the drive's finger tab and slide it out of its slot, as shown in the example in Figure 3-7.

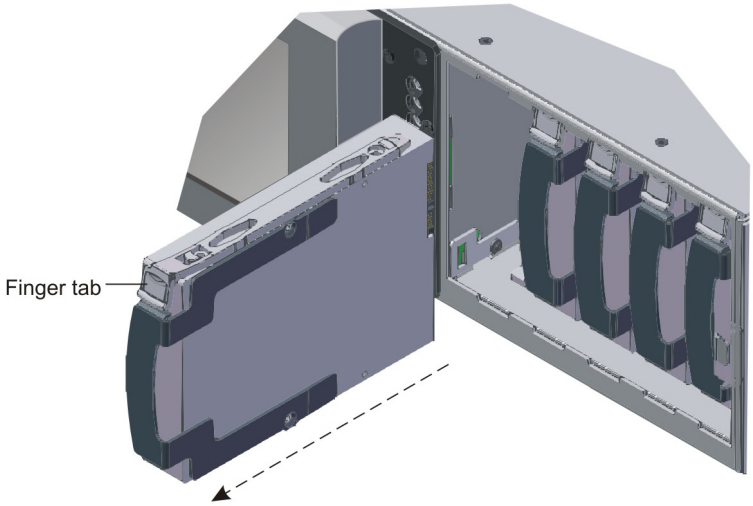


Figure 3-7 Remove Failed Drive from DP600

7. Be sure that no work order is running, then grasp the replacement drive's finger tab, and firmly but gently slide the drive into its slot (see Figure 3-8) until you feel resistance, which indicates that the drive is seated in its socket.

   You can replace a drive with a higher capacity unit but not with a lower capacity unit.

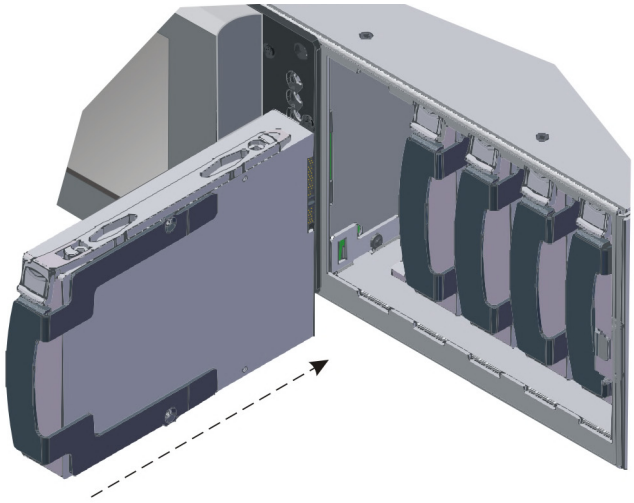


Figure 3-8 Insert Replacement Drive in DP600

8. Position the retaining bracket in front of the hard drives, lining it up with the screw holes, slide the screws outward to their original position, then use a Phillips screwdriver to tighten its four screws and secure the drives, as shown in Figure 3-9.

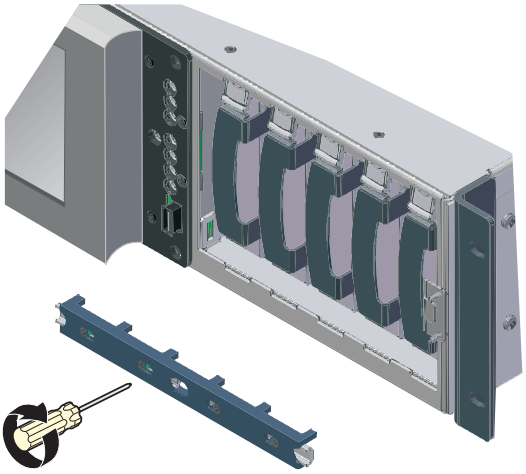


Figure 3-9 Reinstall Retaining Bracket

9. Reinstall the drive cover by positioning it so that the mounting tang on the right side of the RAID bay inserts in the mounting slot on the rear of the drive cover. To do this, hold the drive cover so that there is an approximately 10-degree angle between the cover and the front of the unit, as shown in Figure 3-10.

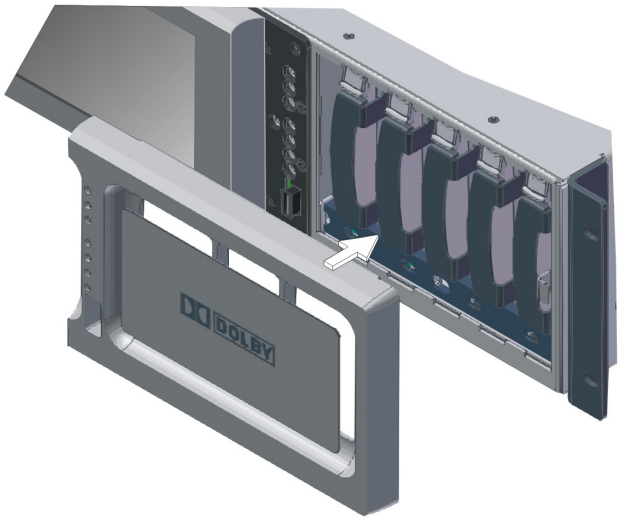


Figure 3-10 Reinstall Front-Panel Drive Cover

10. Slide the drive cover over the mounting tang and move it to the left until the mounting stud on the left rear side of the cover engages the hole in the front of the unit.

    If you replaced one RAID drive and did not shut down the system, the RAID array rebuilds automatically. However, if you are not running multiple work orders, we recommend shutting down the system, rebooting, and manually rebuilding the RAID array, as described in Section 3.1.2.

    If you replaced a non-RAID drive, rebooting and manual rebuilding is required, as described in Section 3.1.2.

    If you replaced both RAID drives (drives 1 and 2), you need to use the DP600 software DVD to reinstall the software, as described in Section 3.3. In such a case, you perform a clean installation and the system automatically synchronizes the two RAID drives, re-creating the original mirrored RAID array (manual rebuilding not required).

3.1.2 Rebuilding DP600 Drives

To manually rebuild DP600 hard drives:

1. Place the DP600 in an idle state by halting all work orders being processed.
2. Shut down the unit by clicking the **power** button in the **system** screen.
3. Be sure a monitor and keyboard are connected to the DP600, then reconnect the power.
4. Press <Alt>+<3> when prompted to access the 3ware® BIOS Manager.

   At this point, a red dialog box informs you that a degraded disk array is installed. Press any key to continue.

If you replaced one of the RAID drives (physical drives 1 or 2):

- Use the arrow keys on the keyboard to select (highlight) the available drive, then press the space bar to select it.
- Use the arrow keys to select the RAID marked as degraded, then press the space bar to select it.
- Press the <Tab> key to select **Maintain Unit**, then press <Enter>.
- Use the arrow keys to select **Rebuild** in the pop-up menu, then press <Enter>. A list appears that shows which RAID drive is designated for rebuilding.
- Press <Enter> to select **OK**.
- Press <F8>, then type *Y* to accept your entries and allow the unit to reboot.

Note: On some smaller keyboards you may need to press <F-Lock> to enable the <F8> function for the dual-use keys.

If you are rebuilding only the RAID array and did not replace a RAID drive:

- Use the arrow keys on the keyboard to highlight the RAID marked as degraded, then press the space bar to select it.
- Press the <Tab> key to select **Maintain Unit**, then press <Enter>.
- Use the arrow keys to select **Rebuild** in the pop-up menu, then press <Enter>. A list appears that shows which RAID drive is designated for rebuilding.
- Press <Enter> to select **OK**.
- Press <F8>, then type *Y* to accept your entries and reboot the unit. Depending on the original size of the RAID array, a rebuild will take from one to several hours to complete. During this time, the system operates normally.

If you replaced a single non-RAID drive (physical drives 3, 4, or 5):

- Use the arrow keys to highlight the new drive that appears in the **Available Drives** area, then press the space bar to select it.
- Press the <Tab> key to move to the menu buttons at the bottom of the screen, then use the arrow keys to select the **Create Unit** button, and press <Enter>. The available unit should now appear in the **Create a disk array from these drives** box.
- Use the arrow keys to select the **OK** button, then press <Enter>.
- Type *Y* to enable the write cache on the new drive. The 3ware BIOS Manager main screen reappears.
- Press <F8> to exit, then type *Y* to accept your entries and reboot the unit. When you replace a single drive, no rebuild time is required. The new drive appears immediately.

3.2 Replacing a DP600 Power Supply

The DP600 requires only one power supply; a second unit is provided for backup. If a problem occurs with either of these power supplies, the power failure indicator LED on the front panel flashes red (see Figure 3-11) and a warning alarm sounds. The Dolby catalog number for each of your DP600's power supplies is identified by a label affixed to the right side of each unit.

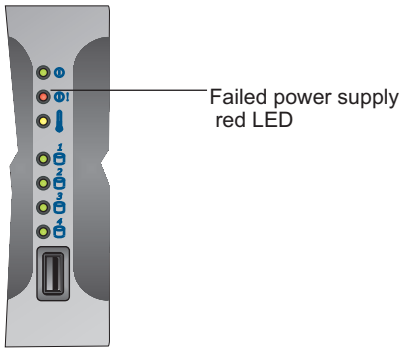


Figure 3-11 DP600 Front-Panel Power Supply Indicator

To replace a DP600 power supply:

1. Identify the failed unit in the rear panel by its nonilluminated LED, as shown in the example in Figure 3-12.

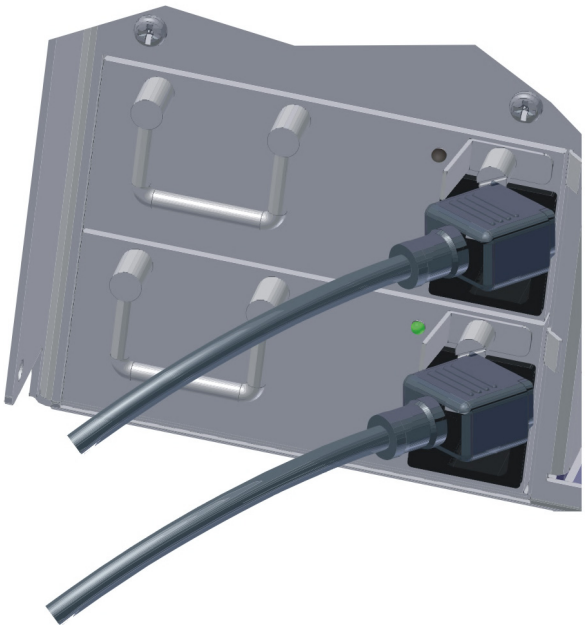


Figure 3-12 DP600 Failed Power Supply (Top Unit in Figure)

2. Press the red **Power Supply Alarm Reset** button to turn off the warning alarm, then disconnect the power cable on the failed power supply and loosen the unit's thumbscrew by turning it counterclockwise, as shown in Figure 3-13.

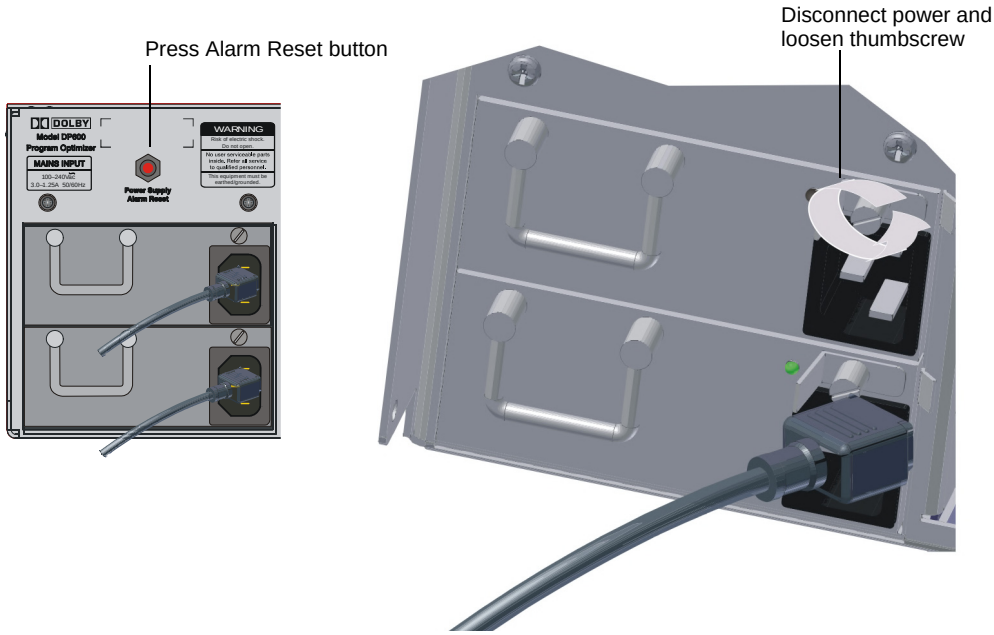


Figure 3-13 Loosen Thumbscrew on Failed Power Supply

3. Press the failed power supply's tab to the left while grasping its handle and pulling the unit out of its slot (see Figure 3-14 and Figure 3-15).

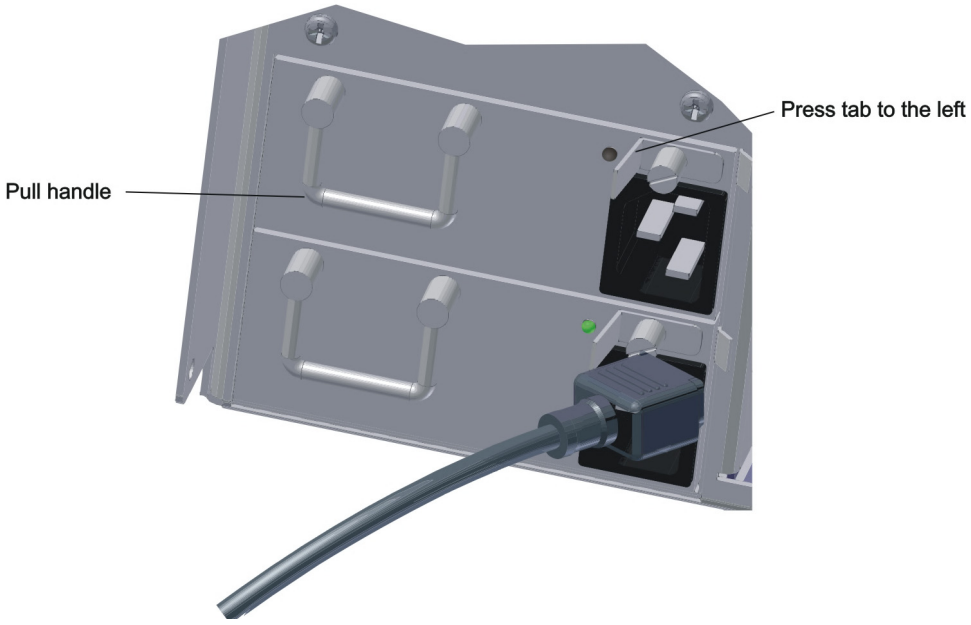


Figure 3-14 Press on Tab and Pull Handle to Remove Failed Power Supply

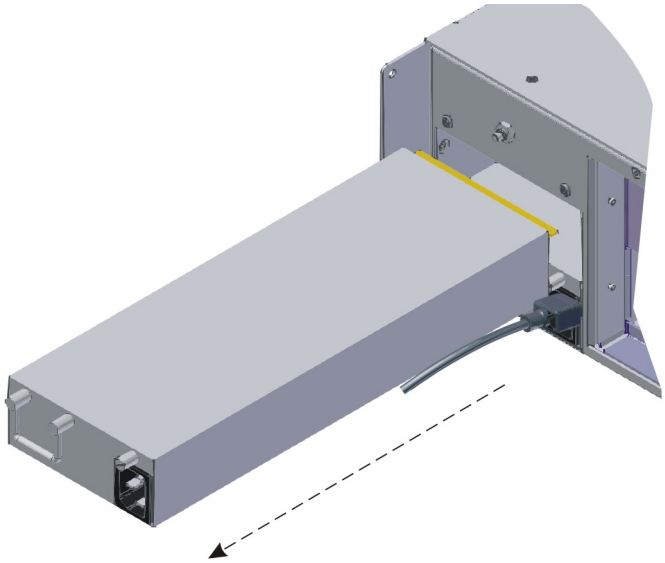


Figure 3-15 Remove Failed Power Supply

4. Position the replacement unit squarely within its slot and push it along the guiding surface until it snaps into place, as shown in Figure 3-16.

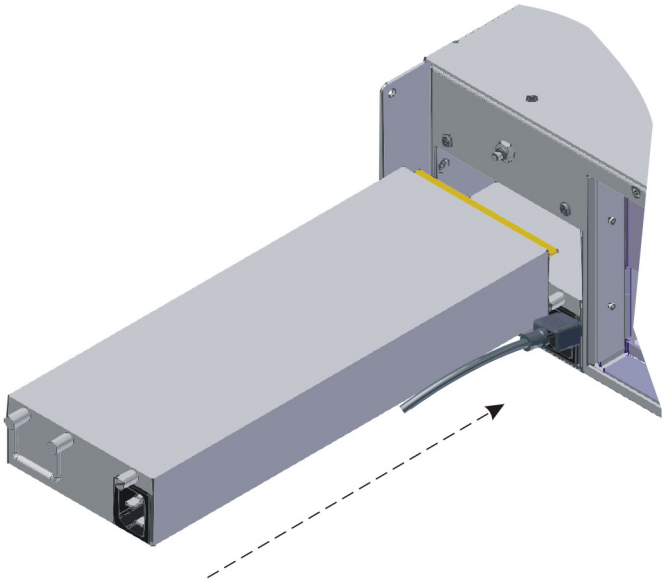


Figure 3-16 Install New Power Supply

5. Tighten the thumbscrew by turning it clockwise, and reconnect power, as shown in Figure 3-17.

   The replacement unit LED turns green and the front-panel red LED turns off, verifying that the new unit is functioning correctly.

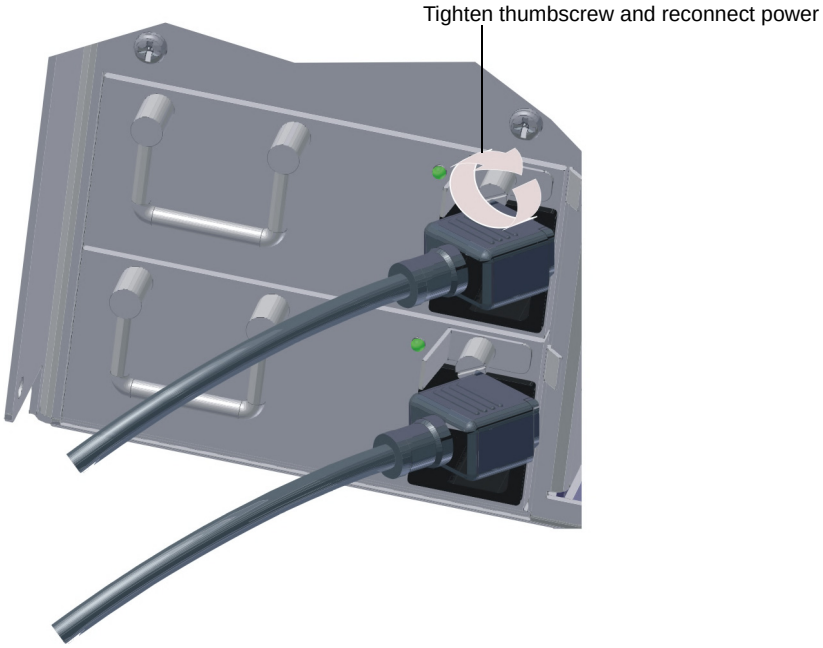


Figure 3-17 New Power Supply Installed and AC Cable Reconnected

3.3 Upgrading/Installing the DP600 Software

The DP600 packing kit includes a *DP600 Installation Softwar*e DVD. With this disc, you can perform a clean installation or an upgrade of the DP600 software (if required). A clean installation restores the DP600 to the factory settings, deleting all your network settings, custom profiles, work orders and reports, bookmarks, and user login information. An upgrade retains all your files and settings.

To perform an upgrade or a clean installation of the DP600 software:

1. Be sure the provided keyboard is connected to one of the unit's USB ports.
2. Insert the *DP600 Installation Software* DVD in the CD/DVD drive, and reboot the system.

   A message says that the software is already installed and displays the currently installed version and the version on the DVD. It prompts you to either type *y* to upgrade (refresh) or press any key to start a clean installation.

3. Press *y* to upgrade (refresh) or press any other key to start a clean installation.

   The upgrade or clean installation process begins. When the new software is completely installed, you are prompted to press any key to reboot, and to remove the DVD.

4. Press any key to reboot and remove the installation disc from the CD/DVD drive. If the disc is still in the CD/DVD drive while rebooting, a clean installation begins.

Although the touch screen was calibrated during the manufacturing process, you may need to recalibrate. If the touch screen calibration setup appears, as shown in Figure 3-18, you need to follow steps a–d, below, within approximately 30 seconds.

If you do not proceed within this time period, the calibration screen disappears. If the calibration setup does not appear, proceed directly to step d, to complete the upgrade or clean installation.

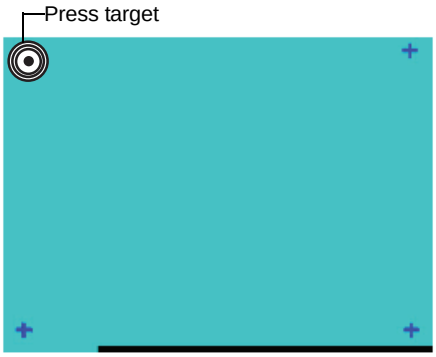


Figure 3-18 Calibration Setup Screen

A small target appears at one corner of the calibration setup, To calibrate the touch screen:

a. Press the first target for a couple of seconds until it changes to a cross.
b. Press the next target until it changes to a cross.
c. Continue this procedure for the additional targets.

   When the calibration is complete, if you performed an upgrade, simply page through the setup screens to display the DP600 **Home** screen. If you performed a clean installation, the DP600 **Welcome!** screen appears, providing a checklist of things you need before you can configure the system, as shown in Figure 2-3.

d. For clean installations, you must follow the instructions in Section 2.2 to configure the system.

3.4 Upgrading Licenses

If you have an **ADMIN** ID and you need to upgrade your system for encoding, decoding, transcoding and conversion or upmixing, see Upgrading Your License on page 87.

3.5 Rebooting and Shutting Down

If you have an **ADMIN** ID and you need to reboot or shut down the system, see Rebooting and Shutting Down the System on page 94.

Send Us Your Feedback

If you have a question or a comment regarding this chapter, send us an email.

Setting Up a Shared Folder and Entering a Path

A.1 Setting Up a Shared Folder

For source and destination work order directories, you need to set up a shared folder for all authorized users. The following instructions provide a high-level example for creating a shared folder on a Microsoft® Windows® PC (with a static IP address) and testing the Dolby® DP600 Client application:

1. Create a login account on the Windows PC named **dp600**.
2. Create a folder in the root of your hard drive named dp600share.
3. Copy content files into dp600share.
4. Right-click on the dp600share folder, then select **Sharing and Security**.
5. Select the **Share this folder** button.
6. Click the **Permissions** button.
7. Click the **Add** button.
8. Be sure the **Location** is the local computer.
9. Enter *dp600* in the text field.
10. Click the **Check Names** button to verify that the account exists on your system.
11. Click the **OK** button.
12. Be sure the permissions for the added user is set to **Full Control**.
13. Click the **OK** button.
14. Select the **Security** tab at the top of the window.
15. Click the **Add** button.
16. Be sure the **Location** is the local computer.
17. Enter *dp600* in the text field.
18. Click the **Check Names** button to verify that the account exists on your system.
19. Click the **OK** button.
20. Be sure permissions for the added user is set to **Full Control**.
21. Click the **OK** button.

    The share should now be set up correctly.

A.2 Entering a Path

When you add a work order, you need to enter the **Source** path to the file or folder (for a hot folder) that you want to designate for processing. In addition, you need to enter the **Destination** path to the location where you want to save the processed files. You can enter **Source** and **Destination** paths using any of the following three methods:

- Entering a URL
- Browsing
- Selecting a bookmark

The following sections describe each of these methods.

Note: Supported file system protocols include FTP, SAMBA/CIFS, and SFTP.

A.3 Entering a Source Path

To enter a source path:

1. Select **home>work orders>add**.
   The **Add Workorder** screen appears.

   In this example we'll select a **Hot Folder** as the **Type**, as shown in Figure A-1.

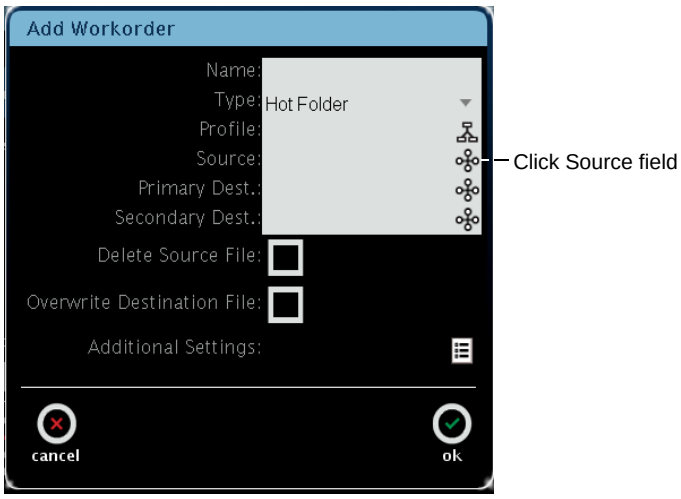


Figure A-1 Add Workorder Screen

2. Click on the **Source** field in the **Add Workorder** screen, as shown in Figure A-1.

   The **Enter Path** screen appears, as shown in Figure A-2. If you are setting up a Multi-File Standard, Mono-only Standard, or Mono-only Hot Folder, the **Enter Path** screen displays some additional data entry fields, as described in Section A.3.4.

Figure A-2 Enter Path Screen

A.3.1 Entering a URL to Specify a Path

To enter a URL:

1. In the **Enter Path** screen**,** type the desired URL in the **URL** field. If required, you can enter a **Username**, **Password**, and **Domain (SMB only)**, in the corresponding fields, as shown in Figure A-3.

Note: Supported file system protocols include FTP, SAMBA/CIFS, and SFTP.

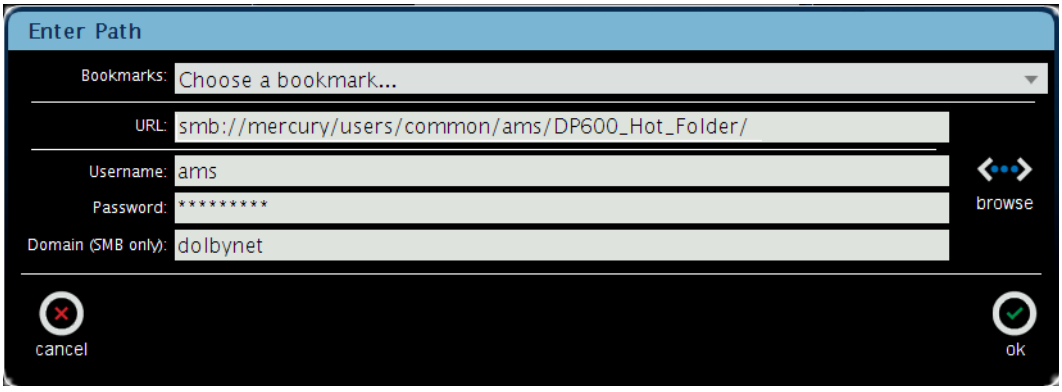


Figure A-3 Type URL in Enter Path Screen

2. After entering a URL, click **ok**.

   Your URL appears in the **Source** field in the **Add Workorder** screen, as shown in the example in Figure A-4 (for a Windows Share/SMB path).

   If you click the **Delete Source File** box, the system deletes the source file after processing the work order. Click the **Overwrite Destination File** box if you want to save another file with the same name when the system processes the work order

Note: The **Additional Settings** for hot folders were previously described in Chapter 2.

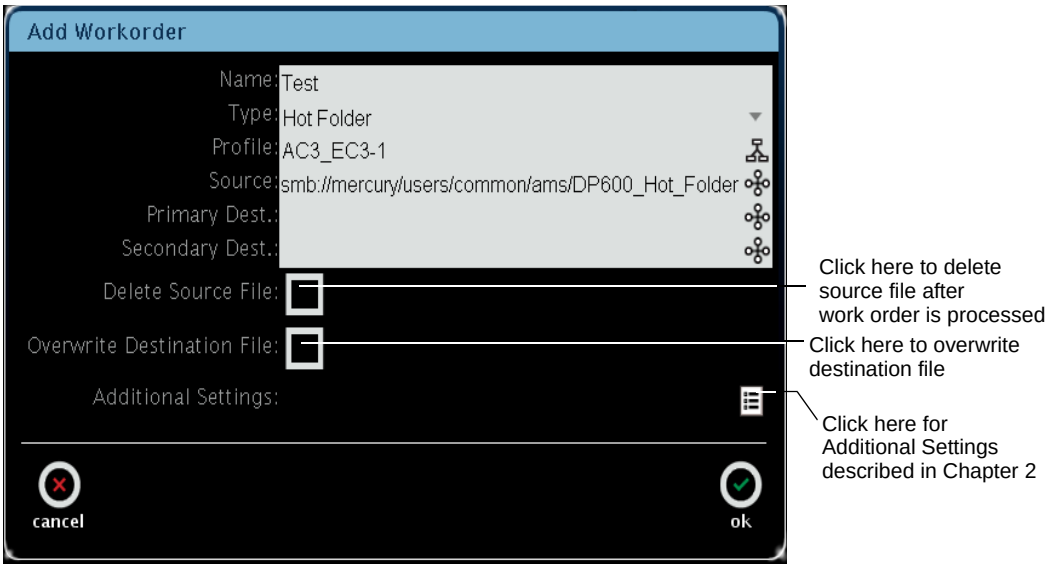


Figure A-4 URL Entered in Add Workorder Screen

A.3.2 Browsing to a Location to Specify a Path

To browse to a location:

1. Click **browse** in the **Enter Path** screen, as shown in Figure A-5.

Note: You cannot browse on Grass Valley servers.

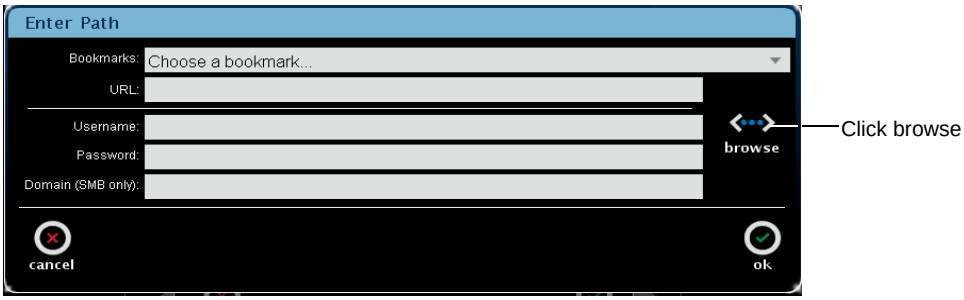


Figure A-5 Click Browse in the Enter Path Screen

The **Select Protocol** screen appears, as shown in Figure A-6.

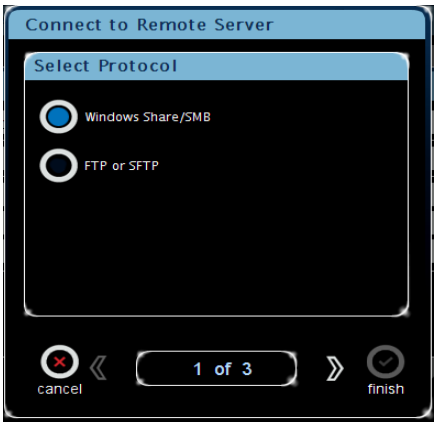


Figure A-6 Select Protocol Screen

2. Select either **Windows Share/SMB** or **FTP or SFTP**, then click the right arrow at the bottom of the screen.

   The **Enter User Credentials** screen appears, as shown in the example in Figure A-7 (for a Windows Share/SMB path).

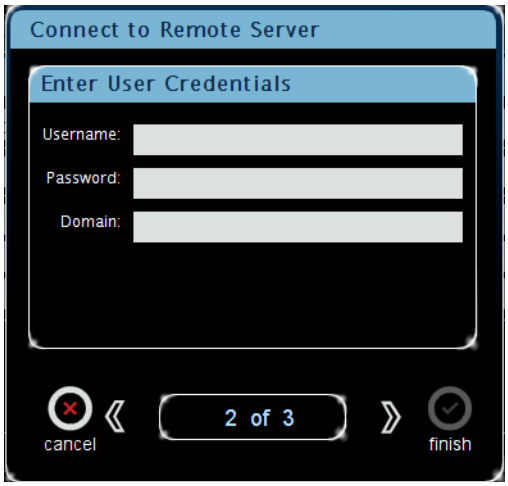


Figure A-7 Enter User Credentials Screen

3. Enter a **Username**, **Password**, and **Domain** (SMB only) in the **Enter User Credentials** screen, then click the right arrow at the bottom of the screen.

   The **Enter Server Details** screen appears.

4. Enter a path in the **Enter Server Details** screen, as shown in the example in Figure A-8 (for a Windows Share/SMB path), then click **finish.**

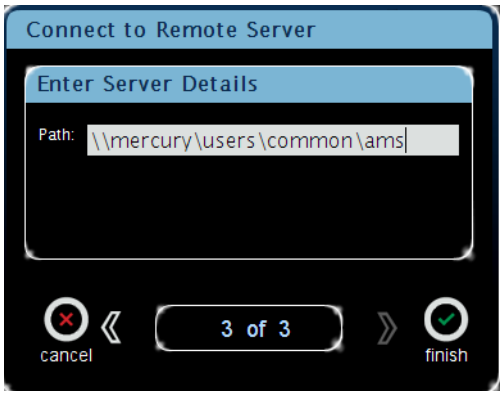


Figure A-8 Enter Server Details Screen

The **Select File** screen appears, as shown in the example in Figure A-9 (for a Windows Share/SMB path). In this screen, you can select the file or folder you want to specify as the path to your source files.

You can also bookmark a path by clicking **add bookmark**, remove an existing bookmark by clicking **remove bookmark**, move up one level in the file hierarchy by clicking **up directory**, refresh the displayed path by clicking **refresh**, and connect to another server by clicking **server connect**.

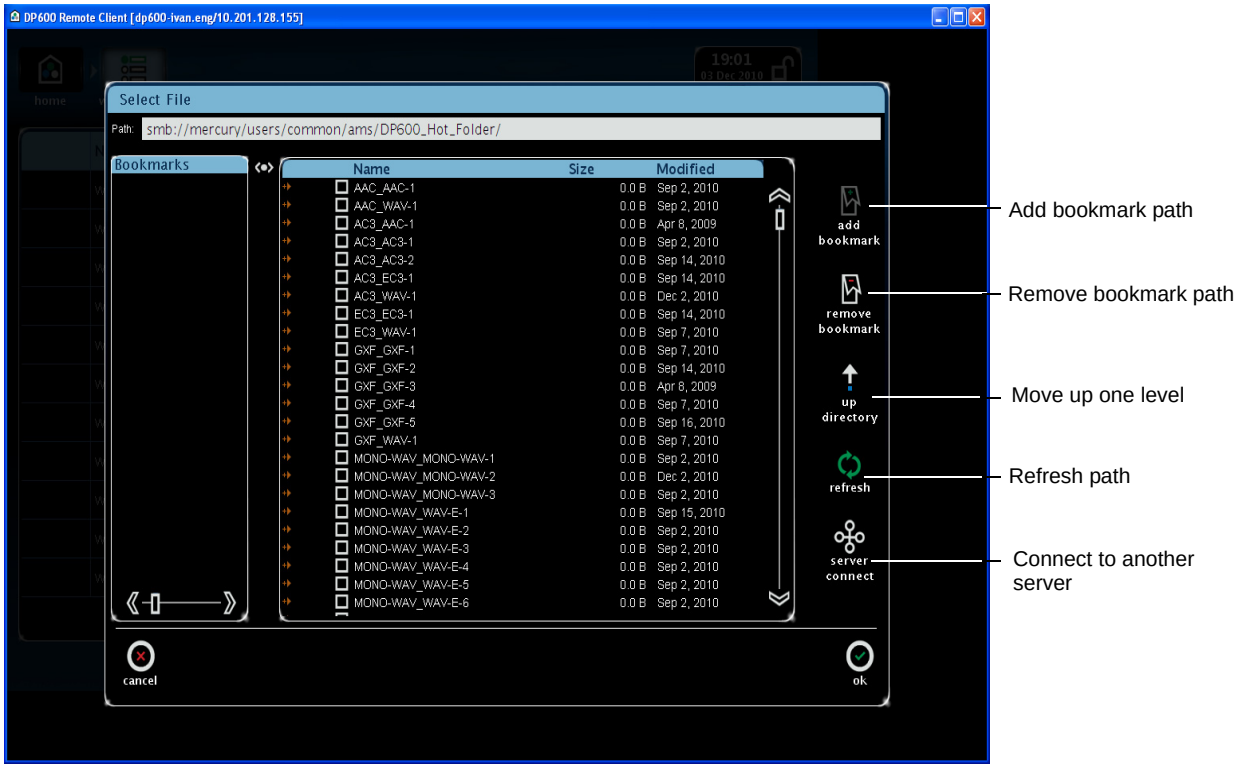


Figure A-9 Select File Screen

5. Click on the desired file or folder, then click **ok**.
   Your path appears in the **Enter Path** screen, as shown earlier in Figure A-3.

   This screen limits the number of files you can select, based on the expected configuration. As a result, a limited number of check boxes appear in this screen (for the corresponding work order).

6. Click **ok** in the **Enter Path** screen.
   Your path appears in the **Add Workorder** screen, as shown earlier in Figure A-4.

   If you want to create a bookmark, click on the desired file or folder in the **Select File** screen, click **add bookmark**, and then click **ok**.

   The **Add Bookmark** screen appears with the bookmark's file/folder name and URL displayed.

7. Enter a unique name for your bookmark in the **Name** field, as shown in the example in Figure A-10, then click **ok**.
   Your bookmark appears in the **Bookmarks** pane at the left side of the **Select File** screen, It also appears in the **Choose a bookmark** drop-down menu (in the **Select Source Path** screen), where you can select it to specify a path, as shown in Figure A-10.

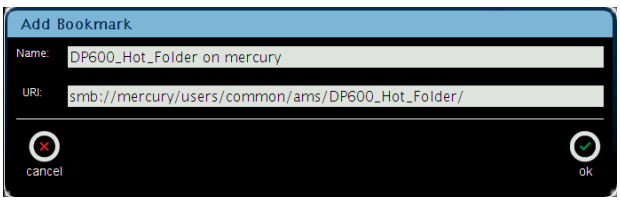


Figure A-10 Add Bookmark Screen

A.3.3 Selecting a Bookmark to Specify a Path

To select a bookmark:

1. Click the **Bookmarks** field in the **Enter Path** screen.
   All the bookmarks you previously added in the **Select File** screen appear in the **Choose a bookmark** drop-down menu.
2. Select the desired bookmark in the drop-down menu to specify a path, then click **ok**, as shown in Figure A-11.

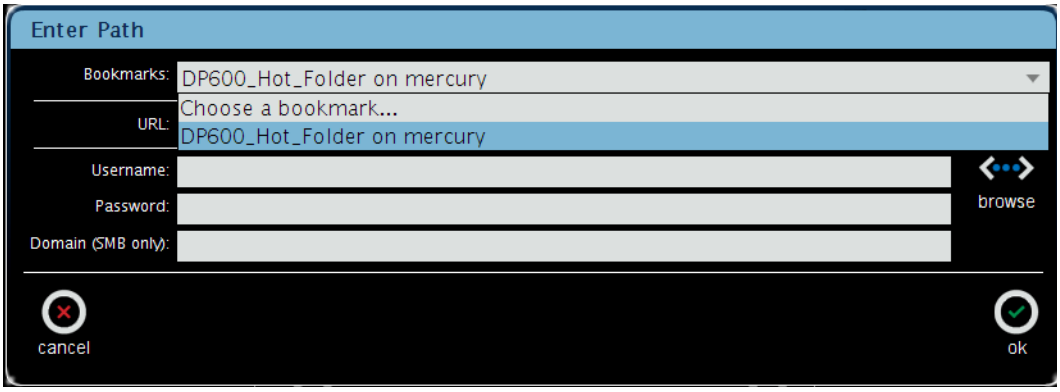


Figure A-11 Selecting a Bookmark

The selected bookmark's path appears in the **Source** field in the **Add Workorder** screen, as shown in the example in Figure A-12.

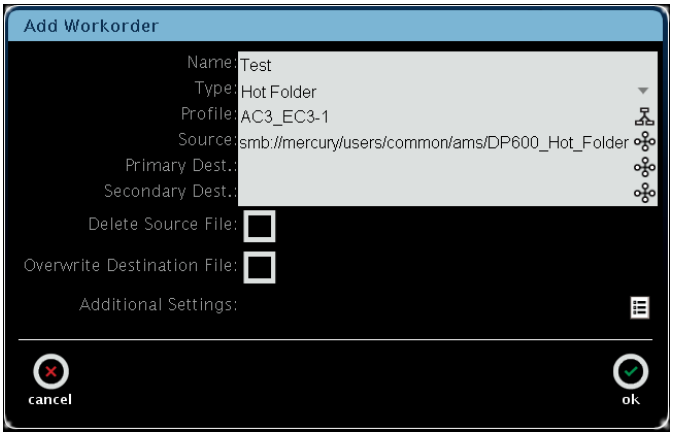


Figure A-12 Bookmark Entered in Source Field

A.3.4 Entering a Path for Work Orders with Multiple Files

If you are setting up a Multi-File Standard, Mono-Only Standard, or Mono-Only Hot Folder, the **Enter Path** screen displays some additional data-entry fields when you click in the **Source** field, as shown in Figure A-13, Figure A-14, and Figure A-15.

Entering a Path for a Multi-File Standard Work Order

This type of work order processes multiple files as if they were a single file. The system measures each file for loudness and uses the overall results to apply the same value to each file. Enter the path to the source directory in the **URL** field, click in the **Files** field for each file in your work order, click **browse**, and then select each file from that directory. You cannot select files from more than one directory.

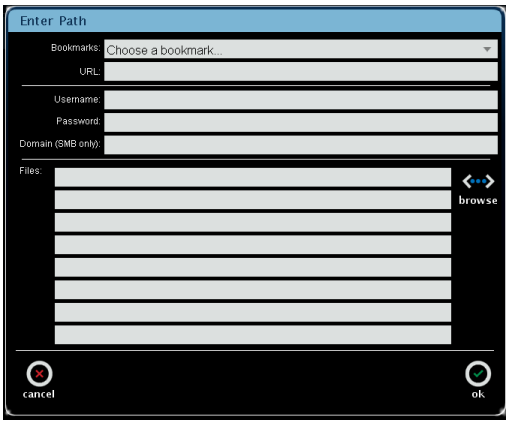


Figure A-13 Enter Path Screen for Multi-File Standard Work Order

Entering a Path for a Mono-Only Standard Work Order

This type of work order processes audio in mono on a file-by-file basis. Each file represents a single channel of a multichannel program. Enter the path to the source directory in the **URL** field, click in the **Files** field for each file in your work order, click **browse**, and then select each file from that directory. You cannot select files from more than one directory. You also need to select the channel configuration, and specify a channel for every file in each program.

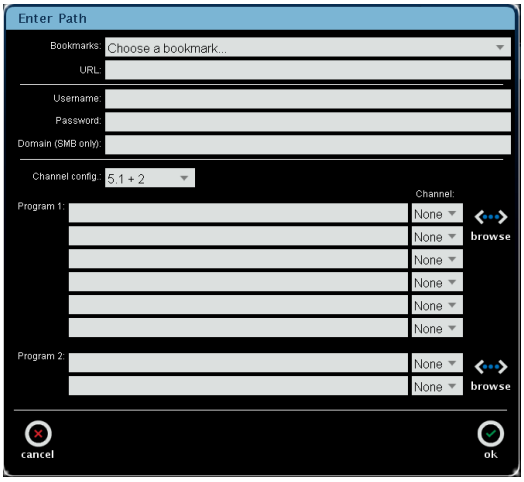


Figure A-14 Enter Path Screen for Mono-Only Standard Work Order

Entering a Path for a Mono-Only Hot folder Work Order

The system processes audio in mono on a file-by-file basis. Each file represents a single channel of a multichannel program. For a simple configuration, you also need to enter a channel configuration, and a timeout value that the system uses to cancel the work order if it cannot locate the required files in the specified time frame (displayed as **failed** in the work order database). If a work order fails, the hot folder itself remains active.

Figure A-15 Enter Path Screen for Mono-Only Hot Folder Work Order

The system groups the required number of files together for processing, based on a file pattern with a common base name and syntax. The **Basename** field in the **Enter Path** screen is not a data-entry field, but is displayed only to show how the system associates the required files. The fields following **Basename** are data-entry fields where you set up the syntax pattern for all the files with a common base name. The system can then process the files with the same syntax pattern and the same base name for the specified channel configuration. Be sure you store only the required number of files in the hot folder that use the same base name. If not, the system may output a multichannel program using the wrong files. Figure A-16 shows the **File Pattern** data-entry fields, and Figure A-17 shows an example configuration.

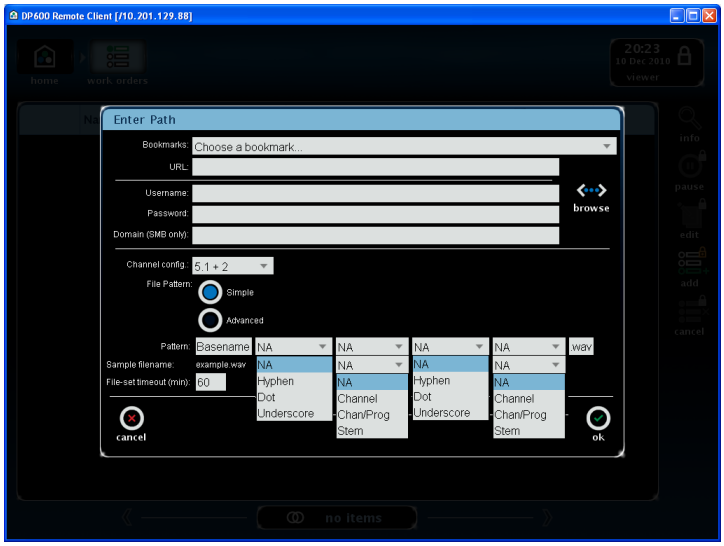


Figure A-16 Simple Configuration File Pattern Data-Entry Fields

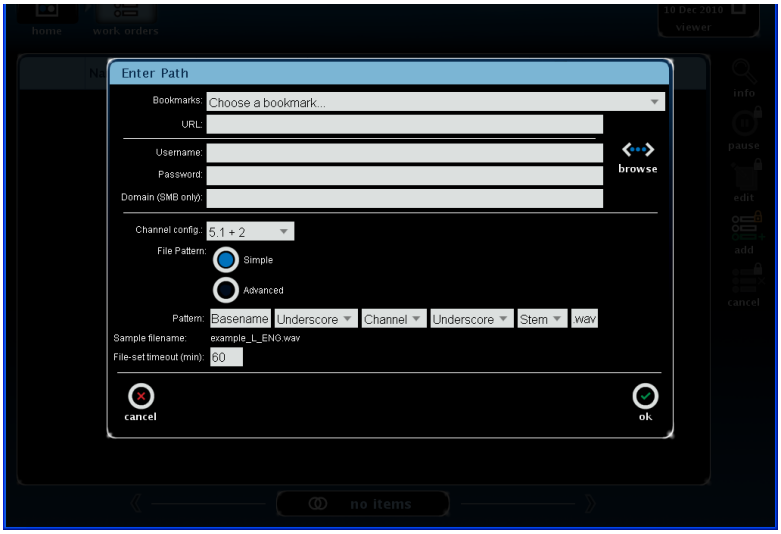


Figure A-17 Simple Configuration File Pattern Example

For information on the **Advanced** Mono-Only hot folder option, contact your authorized Dolby technical representative.

A.4 Entering a Destination Path

To enter a destination path:

1. Click the **Destination** field in the **Add Workorder** screen.

   The **Enter Path** screen appears. This screen is identical to the **Enter Path** screen shown in Figure A-2.

   Use any of the methods described for entering a source path to enter the destination path, then click **ok** (see Section A.3).

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DP600 Program Optimizer Detailed Profile Descriptions

B.1 Understanding DP600 Profiles

A DP600 profile defines a set of actions and processes on a specific type of source file, which includes specific actions on any or all audio data types and the configurations contained within them (if applicable).

Following are some important points to remember regarding DP600 profiles:

Note: DP600 profile information is updated periodically. For the latest information on DP600 profiles, please go to the DP600 area on www.dolbysupport.com.

1. The DP600 profiles and processes always expect and are capable of providing multichannel .wav files that are restricted to the following channel order within the file: Left, Right, Center, LFE, Left Surround, Right Surround per SMPTE 320M Table 2. (Failure to adhere to this rule results in unintended behavior.)
2. All DP600 profiles and processes that expect and/or provide multichannel or multiprogram audio must be contained in a single file (that is, all channels are interleaved). For this reason, the DP600 does not support discrete (single-channel monophonic) input files that (together) comprise a complete multichannel audio program. However, the DP600 does support single-channel monophonic .wav or .aiff files that do represent a complete audio program.
3. For any DP600 profiles that expect a PCM .wav source file, the Dolby® metadata chunk[1] is optional. In cases where the metadata chunk is not present, the DP600 processes utilize a default set of metadata parameters, except where noted in the profile descriptions provided on the following pages in this appendix. For this reason, the Dolby metadata chunk is required to obtain full control over any or all Dolby metadata parameters (on a file-by-file basis).
4. All decoder-related profiles that output PCM .wav files default to 16-bit sample depths (unless noted otherwise), except for Dolby E decoding, which defaults to 24-bit sample depths.
5. Unless otherwise noted, many files processed by the DP600 (that is, the output files) contain the text string -corrected, which is appended to the input file name. For example, a source file name such as DP600_test.mpg results in a processed file named DP600_test-corrected.mpg in your destination directory.

[1] The Dolby metadata chunk specification is available upon request.

6. Profiles that are capable of processing source files into multiple output files (for example, a 5.1+2–channel Dolby E decode) name each program as follows:

   Program 1: source_filename-sequence[1]-program[1]-corrected.wav

   Program 2: source_filename-sequence[1]-program[2]-corrected.wav

Note: The -corrected suffix appears if a loudness correction step was performed.

7. All profiles referencing MPEG-2 transport streams assume that only a single program is present.
8. For .wav files larger than 4 GB, the DP600 supports only the European Broadcasting Union (EBU) RF64 BWF-compatible multichannel file format. (An RF64 format file may also be termed as a Multichannel Broadcast WAV Format, or MBWF, file).
9. All 20-bit Dolby E data must be formatted per SMPTE 337M and wrapped in a 24-bit .wav file container before transferring it to the DP600 for processing (this excludes any Dolby E data contained within an MPEG transport stream, MPEG program stream, or GXF file).
10. All 16-bit Dolby E data must be formatted per SMPTE 337M and wrapped in a 16-bit .wav file container before transferring it to the DP600 for processing (this excludes any Dolby E data contained within an MPEG transport stream, MPEG program stream, or GXF file).

Note: 16-bit Dolby E data is supported only when used with specific profiles. For more information, see the profile descriptions in Table B-1.

Note: The .aiff file format does not support audio data (file) lengths greater than 4294967296 bytes (that is., 4.29 GB).

Table B-1 lists all DP600 default profiles.

Table B-1 DP600 Default Profiles

DP600 Profile	Description
AC3_AC3-1	Dolby Digital (.ac3) loudness correction
AC3_AC3-2	Dolby Digital (.ac3) 2/0 to 3/2L upmix with loudness correction; 1/0, 3/2L loudness correction
AC3_EC3-1	Dolby Digital (.ac3) loudness correction, directly convert to Dolby Digital Plus (.ec3)
AC3_WAV-1	Dolby Digital (.ac3) loudness correction (–24 LKFS), decode to PCM (.wav)
EC3_EC3-1	Dolby Digital Plus (.ec3) loudness correction
EC3_WAV-1	Dolby Digital Plus (.ec3) loudness correction (–24 LKFS), decode to PCM (.wav)
GXF_GXF-1	GXF Dolby E and PCM loudness correction (PCM @ –24 LKFS)
GXF_GXF-2	GXF PCM 5.1+2+2 loudness correction (–24 LKFS)
GXF_GXF-3	GXF PCM tracks 1+2/3+4 loudness correction (–24 LKFS)
GXF_GXF-4	GXF PCM 5.1 vertical ancillary data space (VANC) loudness correction (–24 LKFS)
GXF_GXF-5	GXF multifile (up to five files) Dolby E+PCM (PCM @ –24 LKFS)
GXF_WAV-1	GXF Dolby E and PCM demultiplex (demux) to PCM (.wav)

Table B-1 DP600 Default Profiles (continued)

DP600 Profile	Description
MONO-WAV_MONO-WAV-1	8 × mono PCM (.wav) loudness correction (–24 LKFS) as 5.1+2, output 8 × mono PCM (.wav)
MONO-WAV_MONO-WAV-2	8 × mono PCM (.wav) loudness correction (–24 LKFS) as 5.1+2, output as interleaved 5.1 and stereo PCM (.wav)
MONO-WAV_MONO-WAV-3	6 × mono PCM (.wav) loudness correction (–24 LKFS) as 5.1, output as interleaved 5.1 PCM (.wav)
MONO-WAV_WAV-E-1	8 × mono PCM (.wav) loudness correction (–24 LKFS), encode to 5.1+2 Dolby E @ 29.97 fps (.wav337M)
MONO-WAV_WAV-E-2	8 × mono PCM (.wav) loudness correction (–24 LKFS), encode to 2+2+2+2 Dolby E @ 29.97 fps (.wav337M)
MONO-WAV_WAV-E-3	6 × mono PCM (.wav) loudness correction (–24 LKFS), encode to 5.1 Dolby E @ 29.97 fps (.wav337M)
MONO-WAV_WAV-E-4	6 × mono PCM (.wav) loudness correction (–24 LKFS), encode to 2+2+2 Dolby E @ 29.97 fps (.wav337M)
MONO-WAV_WAV-E-5	8 × mono PCM (.wav) loudness correction (–24 LKFS), encode to 5.1+2 Dolby E @ 25 fps (.wav337M)
MONO-WAV_WAV-E-6	8 × mono PCM (.wav) loudness correction (–24 LKFS), encode to 2+2+2+2 Dolby E @ 25 fps (.wav337M)
MONO-WAV_WAV-E-7	6 × mono PCM (.wav) loudness correction (–24 LKFS), encode to 5.1 Dolby E @ 25 fps (.wav337M)
MONO-WAV_WAV-E-8	6 × mono PCM (.wav) loudness correction (–24 LKFS), encode to 2+2+2 Dolby E @ 25 fps (.wav337M)
MP4_MP4-1	Dolby Digital and/or Dolby Digital Plus loudness correction in MP4
MXF_MXF-1	Dolby E (.wav or .aiff337M) and/or PCM (.wav or .aiff) loudness correction (PCM @ –24 LKFS) in Material Exchange Format (MXF) OP1a and OP1b
MXF_MXF-2	8 × 1 PCM (.aes) loudness correction (–24 LKFS) as 2+2+2+2 in D-10 MXF OP1a
MXF_MXF-3	8 × mono PCM (.wav) loudness correction (–24 LKFS) as 2+2+2+2 in Sony® XDCAM® MXF OP1a
MXF_WAV-1	Demux generic container MXF, output PCM (.wav)
MXF_WAV-2	Demux D-10 MXF as 2+2+2+2, output 4 × stereo PCM (.wav)
Omneon_Omneon-1	Dolby E (.wav or .aiff337M) and/or PCM (.wav or .aiff) loudness correction (PCM @ –24 LKFS) in MXF OP1a or OP1b, or Apple® QuickTime® reference file
PS_PS-1	MPEG-2 program stream Dolby Digital and/or Dolby E/PCM and/or MPEG-1 LII loudness correction (MP2 @ –24 LKFS)
PS_WAV-1	MPEG-2 PS MPEG-1 LII Dolby E loudness correction (–24 LKFS), merge and decode to PCM (.wav)
TS_TS-1	MPEG-2 transport stream (TS) Dolby Digital and/or Dolby Digital Plus and/or MPEG-1 LII loudness correction (MP2 @ –24 LKFS)
TS_TS-2	MPEG-2 TS MPEG-1 LII loudness correction (–24 LKFS), encode to Dolby Digital
TS_TS-3	MPEG-2 TS MPEG-1 LII loudness correction (–24 LKFS), encode to Dolby Digital, remove MPEG-1 LII
TS_TS-4	MPEG-2 TS Dolby Digital loudness correction, directly convert to Dolby Digital Plus
TS_TS-7	MPEG-2 TS; merge, loudness correction of SMPTE 302M, encode to Dolby Digital, remove SMPTE 302M
TS_TS-8	MPEG-2 TS Dolby Digital and/or Dolby Digital Plus and/or MPEG-1 LII loudness measurement
WAV/AC3_WAV-1	Dolby Digital (.wav337M), decode to PCM (.wav)
WAV/EC3_WAV-1	Dolby Digital Plus (.wav337M), decode to PCM (.wav)
WAV/E_AC3-1	Dolby E (.wav337M) or PCM (.wav) loudness correction (PCM @ –24 LKFS), convert to two Dolby Digital (.ac3) programs
WAV/E_EC3-1	Dolby E (.wav337M), convert to Dolby Digital Plus (.ec3)
WAV/E_STITCH_AC3-1	Dolby E (.wav337M) frame align, stitch to Dolby Digital (.ac3)

Table B-1 DP600 Default Profiles (continued)

DP600 Profile	Description
WAV/E_STITCH_AC3-2	Dolby E (16-bit.wav337M) frame align, stitch to Dolby Digital (.ac3)
WAV/E_WAV-1	Dolby E (.wav337M) loudness correction (–24 LKFS) to PCM (.wav)
WAV/E_WAV-2	Dolby E (.wav337M) loudness correction (–24 LKFS) to PCM (.wav)
WAV/E_WAV/AC3-1	Dolby E (.wav337M) to Dolby Digital (.wav337M), 16-bit output
WAV/E_WAV/AC3-2	Dolby E (.wav337M) to Dolby Digital (.wav337M), 24-bit output
WAV/E_WAV/E-1	Dolby E (.wav337M) loudness correction
WAV-PT_WAV/E-1	PCM interleaved six-channel input (.wav) from Avid® Pro Tools®, loudness correction (–24 LKFS), encode to 5.1 Dolby E @ 29.97 fps (.wav337M)
WAV-PT_WAV/E-2	PCM interleaved six-channel input (.wav) from Pro Tools, loudness correction (–24 LKFS), encode to 5.1 Dolby E @ 25 fps (.wav337M)
WAV-PT_WAV-PT-1	Six-channel 5.1 PCM (.wav) from Pro Tools, loudness correction to –24 LKFS, output as 5.1 interleaved PCM (.wav) for Pro Tools
WAV_AC3-1	Stereo or 5.1 PCM (.wav) loudness correction (–24 LKFS), encode to Dolby Digital (.ac3)
WAV_EC3-1	Two- or six-channel PCM (.wav) loudness correction, encode to Dolby Digital Plus (.ec3)
WAV_MPII-1	PCM (.wav) loudness correction (–24 LKFS), encode to MPEG-1 LII (.mp2)
WAV_WAV-1	PCM (.wav) loudness correction (–24 LKFS)
WAV_WAV-2	PCM interleave six-channel input (.wav), encode to Dolby Pro Logic® II, pass through stereo
WAV_WAV-3	PCM stereo (.wav) upmix to 5.1 (interleaved six-channel input), pass through mono and 5.1
WAV_WAV/E-1	PCM interleaved eight-channel input (.wav), loudness correction (–24 LKFS), encode to 5.1+2 Dolby E @ 29.97 fps (.wav337M)
WAV_WAV/E-2	PCM interleaved eight-channel input (.wav), loudness correction (–24 LKFS), encode to 2+2+2+2 Dolby E @ 29.97 fps (.wav337M)
WAV_WAV/E-3	PCM interleaved six-channel input (.wav), loudness correction (–24 LKFS), encode to 5.1 Dolby E @ 29.97 fps (.wav337M)
WAV_WAV/E-4	PCM interleaved six-channel input (.wav), loudness correction (–24 LKFS), encode to 2+2+2 Dolby E @ 29.97 fps (.wav337M)
WAV_WAV/E-5	PCM interleaved eight-channel input (.wav), loudness correction (–24 LKFS), encode to 5.1+2 Dolby E @ 25 fps (.wav337M)
WAV_WAV/E-6	PCM interleaved eight-channel input (.wav), loudness correction (–24 LKFS), encode to 2+2+2+2 Dolby E @ 25 fps (.wav337M)
WAV_WAV/E-7	PCM interleaved six-channel input (.wav), loudness correction (–24 LKFS), encode to 5.1 Dolby E @ 25 fps (.wav337M)
WAV_WAV/E-8	PCM interleaved six-channel input (.wav), loudness correction (–24 LKFS), encode to 2+2+2 Dolby E @ 25 fps (.wav337M)

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System Administrator Functions

This chapter is for DP600 system administrators only. Before users can operate the system, a system administrator must set up user IDs and passwords, which specify the respective access level for each user.

C.1 Access Levels

There are three DP600 access levels:

- **VIEWER** (default): no password required
- **USER**: password required
- **ADMIN**: password required

Note: You can change the **VIEWER** access level to **USER** or **ADMIN**, as described in Changing the Default Access Level on page 83.

C.1.1 Admin Level

The **ADMIN** level is intended only for system administrators. With this level of access, a system administrator can perform all DP600 functions.

C.1.2 User Level

The **USER** level is intended for DP600 operators. Users can view information and system status, and set up work orders and generate reports, but cannot cancel or edit work orders or use the **config**, **upgrade**, **maintenance**, and **power** functions.

C.1.3 Viewer Level

At the **VIEWER** level, a user can view information and system status, but cannot operate the system. This is the default level of access and does not require a password.

C.2 Setting Up an Admin Level Password

Before setting up **USER** IDs, you need to add a new **ADMIN** ID that you will use to log in to the system. You can perform this function using the DP600 touch screen user interface or the DP600 Client. You or any other user can log in to the touch screen and the Client with the same **USER** ID, but all users must log in to each of these interfaces separately to access their respective functions.

To set up your **ADMIN** ID:

1. Press or click the lock icon at the upper right side of the **home** screen (next to the time and date), as shown in Figure C-1.

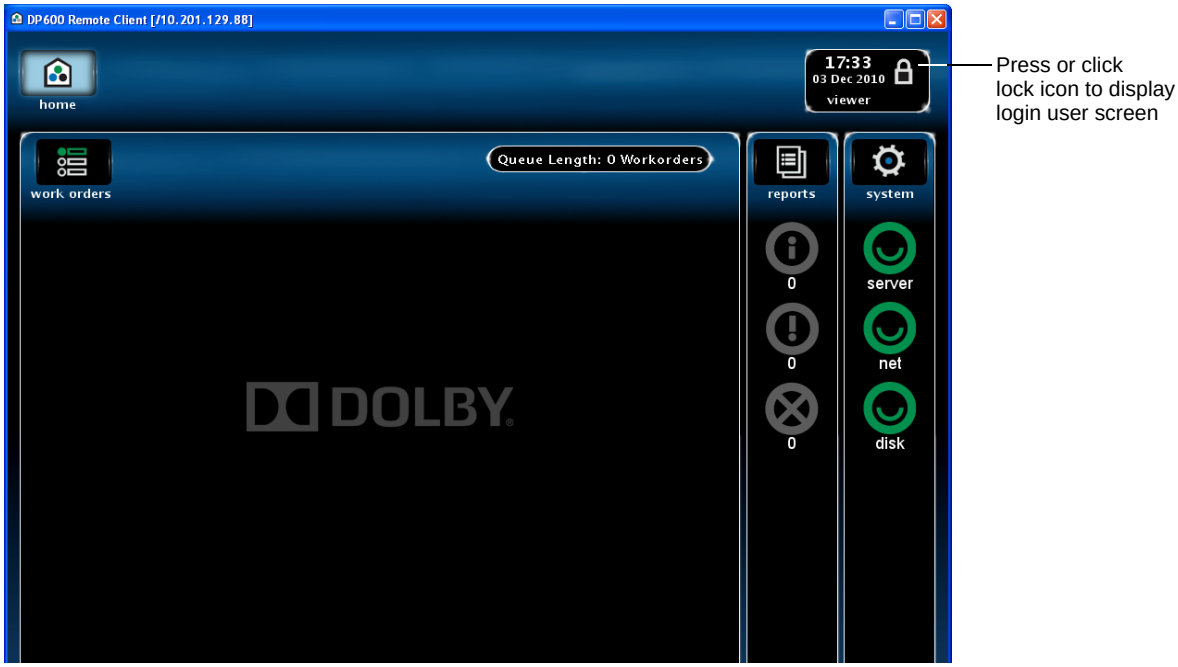

Figure C-1 Press or Click the Lock Icon to Display the Login Screen

The **Login User** screen appears, as shown in Figure C-2.

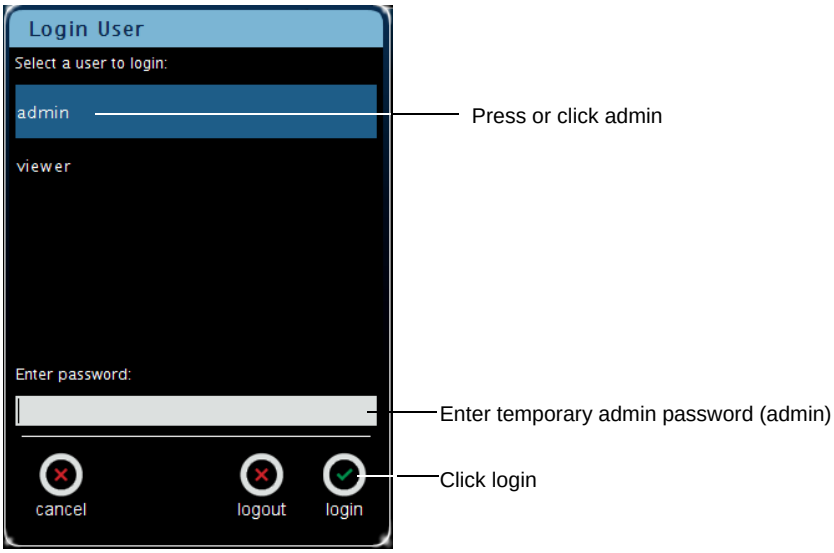

Figure C-2 Login User Screen

2. Press or click **admin**, then click in the **Enter password** field, enter the temporary password *admin*, and click **login**.

   The lock icon changes to the unlocked position. This indicates that the system is now accessible at the **ADMIN** level. You also see your ID displayed below the time and date. After ten minutes of idle time, the system returns to the locked position, but you should press **logout** to lock the system whenever you're done working in the unlocked mode.

3. Press or click system

, below the lock icon.

   The **system** screen appears, as shown in Figure C-3.

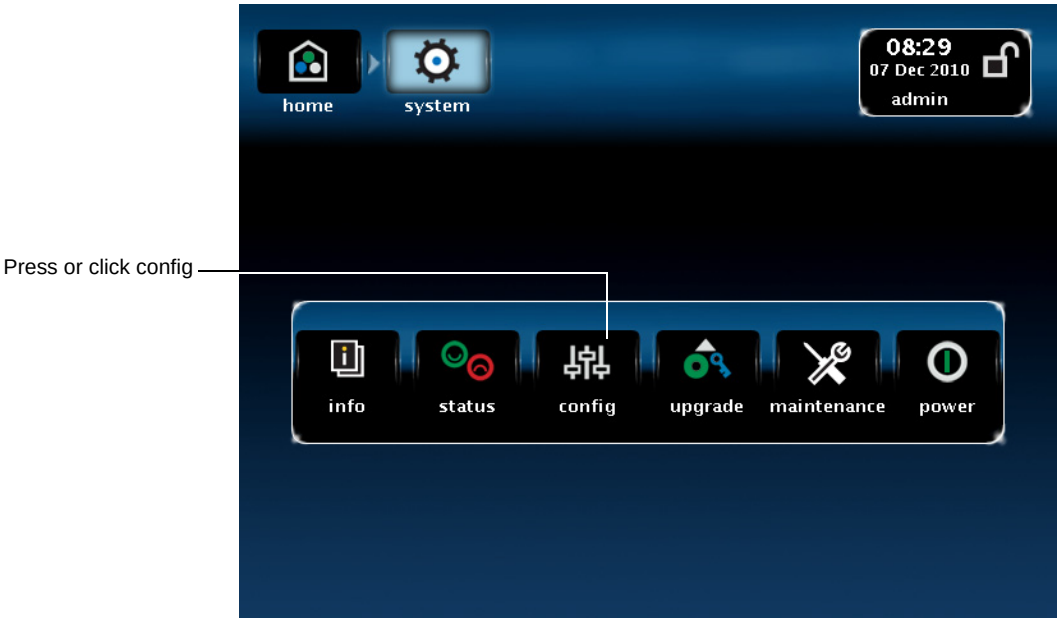

Figure C-3 Press or Click Config in System Screen

4. Press or click **config** in the **system** screen.

   The **config** screen appears, as shown in Figure C-4.

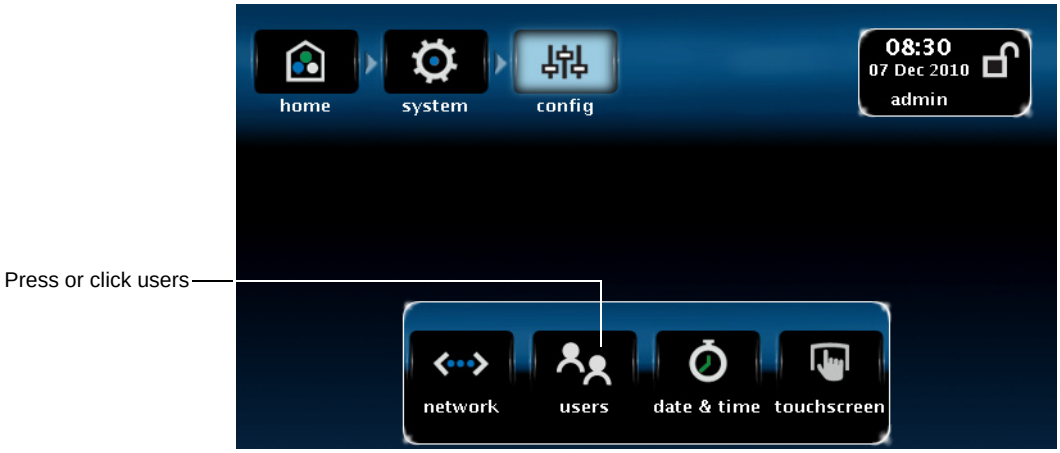

Figure C-4 Press or Click Users in Config Screen

5. Press or click **users** in the **config** screen.

   The add (**+**) and remove (**-**) **users** screen appears, as shown in Figure C-5.

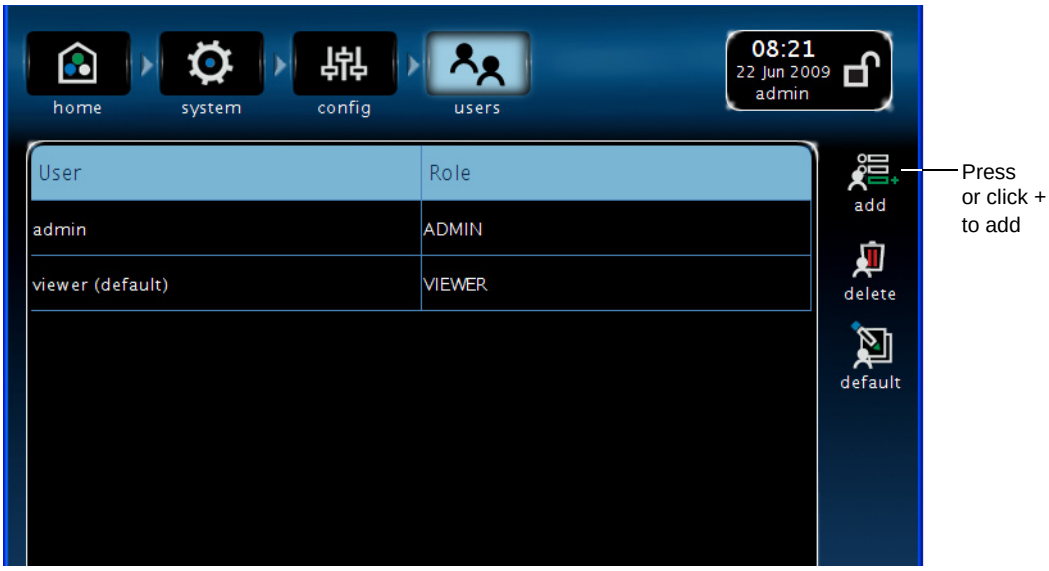

Figure C-5 Press or Click + in Add and Remove Users Screen

6. Press or click **+** to add a new **ADMIN** level ID and password.
   The **Enter New User** screen appears, as shown in Figure C-6.

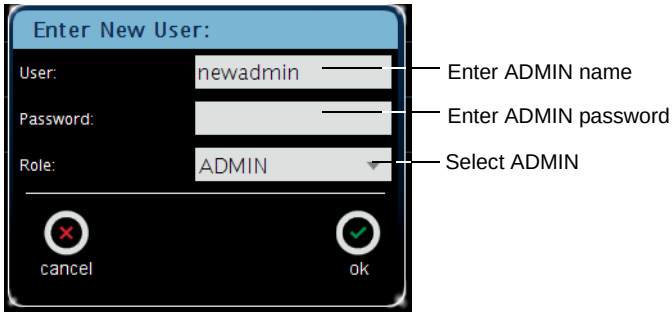

Figure C-6 Add Admin Level User

7. Press or click the **User** field, then enter an **ADMIN** ID using ten or less characters with no spaces.
8. Press or click the **Password** field, then enter a password, using 32 or less characters, and write it down in a safe place.

   Later, you will delete the temporary **ADMIN** ID and password, so be sure to keep a record of your new password.
9. Press or click the **Role** field, select **ADMIN** in the drop-down menu, and click **ok**.

   Your new **ADMIN** ID and password appear in the **users** screen. You can add additional **ADMIN** IDs using this same procedure.
10. Click the lock icon to display the **Login Users** screen (shown in Figure C-2).
11. Click **logout** to log out of the system.
12. Click **login** to log back in to the system.
13. Login with your new **ADMIN** ID and password.
14. Press or click the temporary **admin** ID in the **users** screen.
15. Press or click remove (**-**) to delete the temporary **admin** ID.

    The temporary ID no longer appears in the list of users.

C.3 Adding Users

To add a **USER** level ID, follow the same procedure described in Section C.2 (for adding an **ADMIN** ID), but select **USER** in the **Role** field.

C.4 Deleting IDs and Passwords

To delete a **USER** ID or **ADMIN** ID, select the desired ID in the **users** screen, then press or click remove (**-**).

C.5 Changing the Default Access Level

To change the default **Viewer** access level to a **USER** or **ADMIN** access level (or to change any other default access level), select the desired **USER** ID in the **users** screen, then press or click **default**.

C.6 Reconfiguring the System

To reconfigure the system, you need to log in with an **ADMIN** level ID and password.

Caution: Before changing the network settings, be sure you're connected to a network.

To reconfigure the **network** settings, use the touch screen as follows:

1. Log in with your **ADMIN** ID and password.
2. Press **system**

to display the **system** screen.

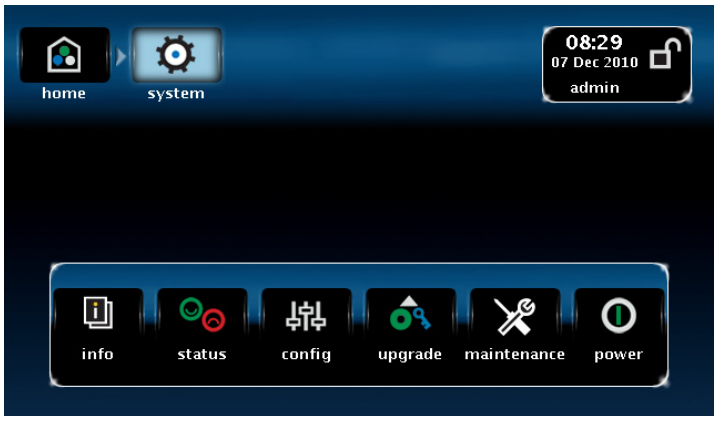

Figure C-7 System Screen

3. Press **config**

to display the **config** screen.

   The **network**, **date & time**, and **touchscreen** settings are accessible only from the touch-screen interface. The **users** setting is accessible from either the touch-screen interface or the DP600 Client.

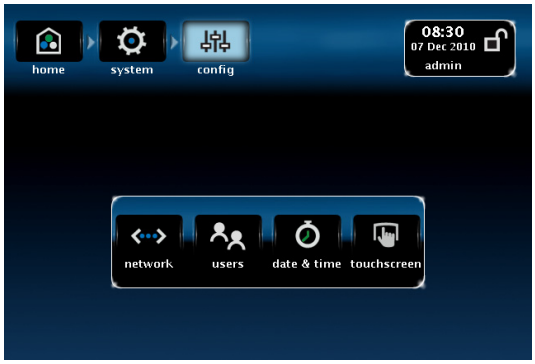

Figure C-8 Config Screen

4. Press **network** in the **config** screen.

   A prompt appears, informing you that the system needs to reboot and return to the commissioning application, as shown in Figure C-9.

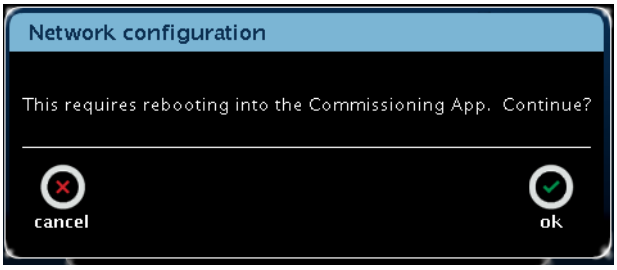

Figure C-9 Date & Time Reboot Screen

5. Press **ok** to return to the commissioning application, then page through the screens until you display the **network** settings.

   This screen is similar to the **network configuration** dialog box in Figure 2-5.

6. Change the network settings, then page through the screens and press the **finish** button.
7. The system automatically reboots with your new settings.

Reconfiguring the Date & Time Settings

To reconfigure the **date & time** settings, use the touch screen as follows:

1. Press **config** in the **system** screen.

   The **config** screen appears, as shown in Figure C-8. In this screen, you can reconfigure your **date & time** settings, if required.

2. Press **date & time** in the **config** screen.

   A prompt appears, informing you that the system needs to reboot and return to the commissioning application (similar to the prompt in Figure C-9).

3. Press **ok** to return to the commissioning application, then page through the screens until you display the **date & time** settings.

   This screen is similar to the **date & time** screen in Figure 2-12.

4. Change the date and time settings, then page through the screens and press the **finish** button.

   The system automatically reboots with your new settings.

Recalibrating the Touch Screen

Your DP600 touch screen was calibrated during the manufacturing process, but you may need to perform a recalibration if you experience any irregularities.

To recalibrate the touch screen, use the touch-screen interface as follows:

1. Press **config**

in the **system**

screen.

   The **config** screen appears, as shown in Figure C-8. In this screen, you can recalibrate the touch screen, if required.

2. Press **touchscreen**

in the **config** screen.

   The **calibrate** button appears, as shown in Figure C-10.

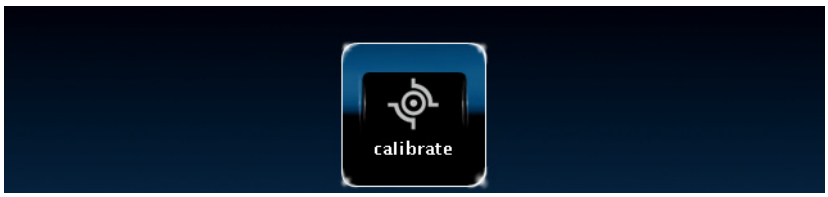

Figure C-10 Calibrate Button

3. Press the **calibrate** button.

   The calibration setup appears with a small target at one corner of the screen, as shown in Figure C-11. To calibrate the touch screen, proceed as follows within approximately thirty seconds from the time it appears. If you do not proceed within this time period, the calibration screen disappears.

   - Press the first target for a couple of seconds until it changes to a cross.
   - Press the next target until it changes to a cross.
   - Continue the above procedure for the additional targets.

     When the calibration is complete, the **calibrate** button reappears, and you can now move on to any other screen, as required.

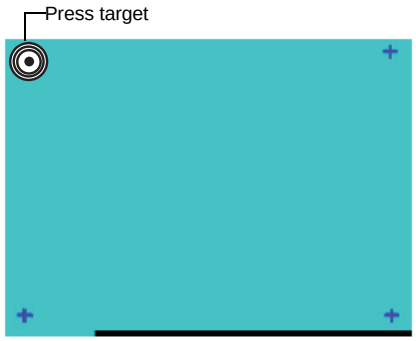

Figure C-11 Calibration Setup Screen

Upgrading Your License

To upgrade your license from a DP600 to a DP600-C (to allow encoding, decoding, transcoding, conversion, and other features), or to upgrade for upmixing, use the touch screen as follows:

1. Press **upgrade**

in the **system**

screen.

   The **upgrade** screen appears, as shown in Figure C-12. Currently, you can upgrade only your license from this screen, but not the DP600 software.

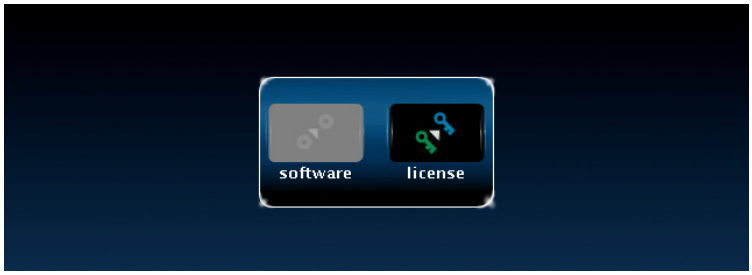

Figure C-12 Upgrade Screen

2. Press the **license**

button in the **upgrade** screen.

   The **License Upgrade** screen appears, as shown in Figure C-13. This screen looks similar to the **License** screen in Figure 2-17 that you used to install your original license. You follow the same procedure (beginning on page 20) to upgrade your license.

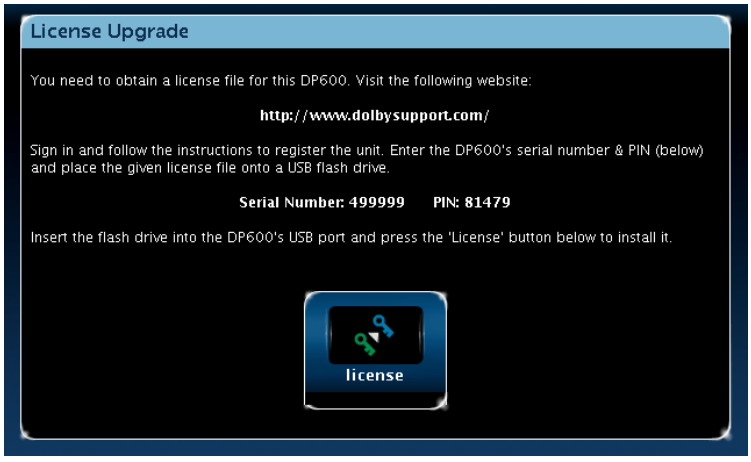
License Upgrade
You need to obtain a license file for this DP600. Visit the following website:
http://www.dolbysupport.com/
Sign in and follow the instructions to register the unit. Enter the DP600's serial number & PIN (below) and place the given license file onto a USB flash drive.
Serial Number: 499999 PIN: 81479
Insert the flash drive into the DP600's USB port and press the 'License' button below to install it.
license

Figure C-13 License Upgrade Screen

Maintaining Work Orders

To maintain your work orders:

1. Press or click **maintenance** in the **system** screen.

   The **maintenance** screen appears, as shown in Figure C-14.

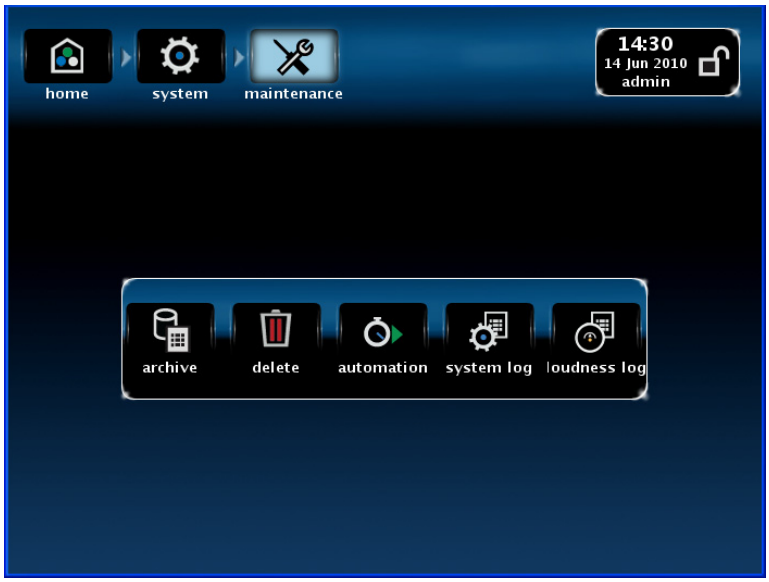

Figure C-14 Maintenance Screen

Archiving Work Order Reports Manually

To archive your work order report files, press or click **archive** in the **maintenance** screen.

The **Report Archive Criteria** screen appears, as shown in Figure C-15. This screen functions like the **Filter Workorder Criteria** screen, shown earlier in Figure 2-44. In this case, you specify which report files to archive, based on your archiving criteria. In addition, this screen provides the following options:

- **Archive location** functions in the same way as entering a path for work order files, described earlier on page 35 (and in greater detail in Section A.2 and Section A.3). In this case, you specify the path where you want to archive your report files.
- **Group Results By** allows you to archive by work order or report type.
- **Zip Archive** allows you to archive your reports in a .zip file.
- **Delete After** allows you to delete the reports after archiving.
- **Loudness Only** allows you to archive only loudness reports.

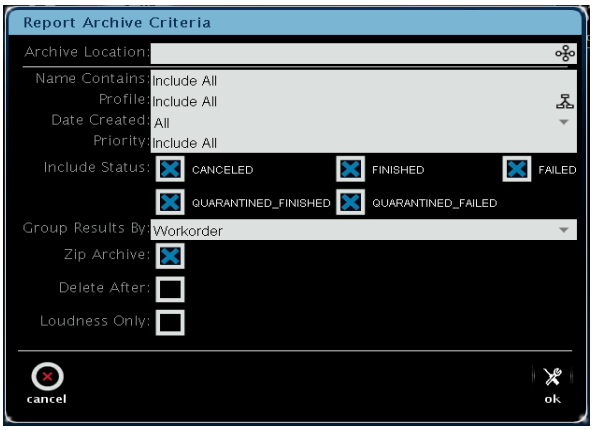

Figure C-15 Report Archive Criteria Screen

Deleting Work Orders Manually

To delete your work order files, press or click **delete**

in the **maintenance** screen.

The **Workorder Deletion Criteria** screen appears, as shown in Figure C-16. This screen functions in the same way as the **Workorder Filter Criteria** screen, shown in Figure 2-44. In this case, you specify which work order files to delete, based on your deletion criteria.

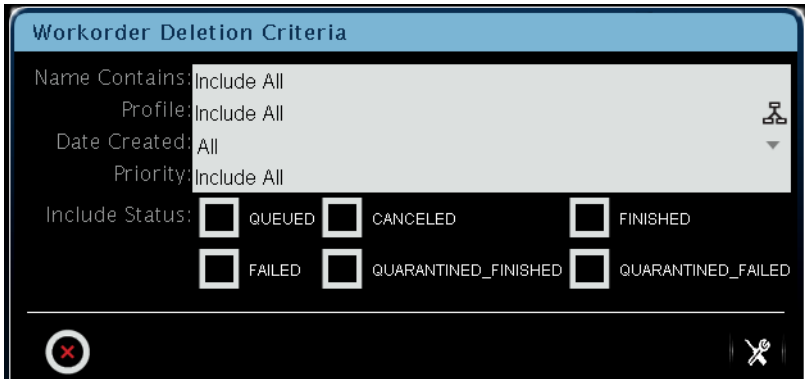

Figure C-16 Workorder Deletion Criteria Screen

Note: For the **Include Status** criteria, **QUARANTINE_FINISHED** is for corrected files and **QUARANTINE_FAILED** is for uncorrected files.

Archiving Reports and Deleting Work Orders Automatically

To archive work order reports and delete work orders automatically:

1. Press or click **automation**

in the **maintenance** screen.
   The **automation** screen appears, as shown in Figure C-17.

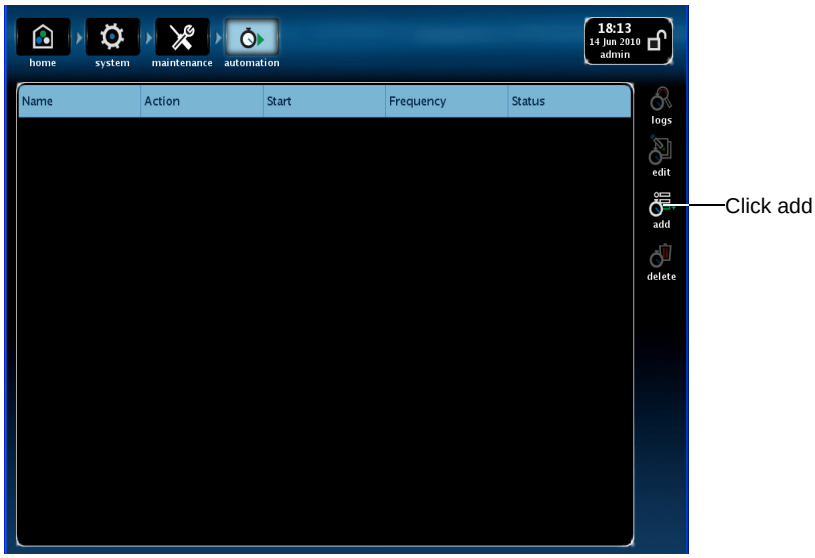

Figure C-17 Automation Screen

2. Press or click **add** in the automation screen.

The **Enter New Automation Criteria** screen appears, as shown in Figure C-18. This screen functions like the **Report Archive Criteria** and **Workorder Deletion Criteria** screens, shown in Figure C-15 and Figure C-16. In this case, you can specify the work order reports to archive and work orders to delete on a recurring basis, based on the entered criteria.

In addition, this screen provides the following criteria: **Job Name** (name of automation job), **Automation Event** (archive, delete, or loudness export), **Start Time** (day, date, and time), **Frequency** (daily, weekly or monthly), **Workorder Threshold** (deletes all work orders over the specified limit; set this up when you configure the system for the first time), **Archive Location**, **Workorder Name Contains**, **Profile**, **Date Created**, **Priority**, **Include Status**, **Group Results By**, **Zip Archive** (compresses archived report files), **Delete After**, and **Loudness Only**.

Note: For the **Include Status** criteria, **QUARANTINE_FINISHED** is for corrected files and **QUARANTINE_FAILED** is for uncorrected files.

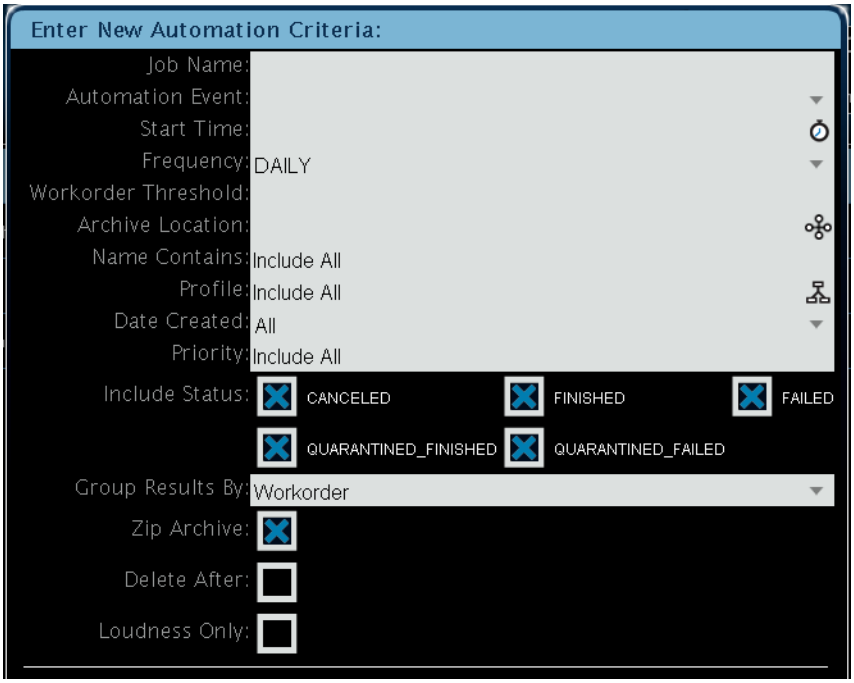

Figure C-18 Enter New Automation Criteria Screen

3. Enter the desired automation criteria, then click **ok**.

   Your specified automation jobs appear in the **automation** window, as shown in the example in Figure C-19.

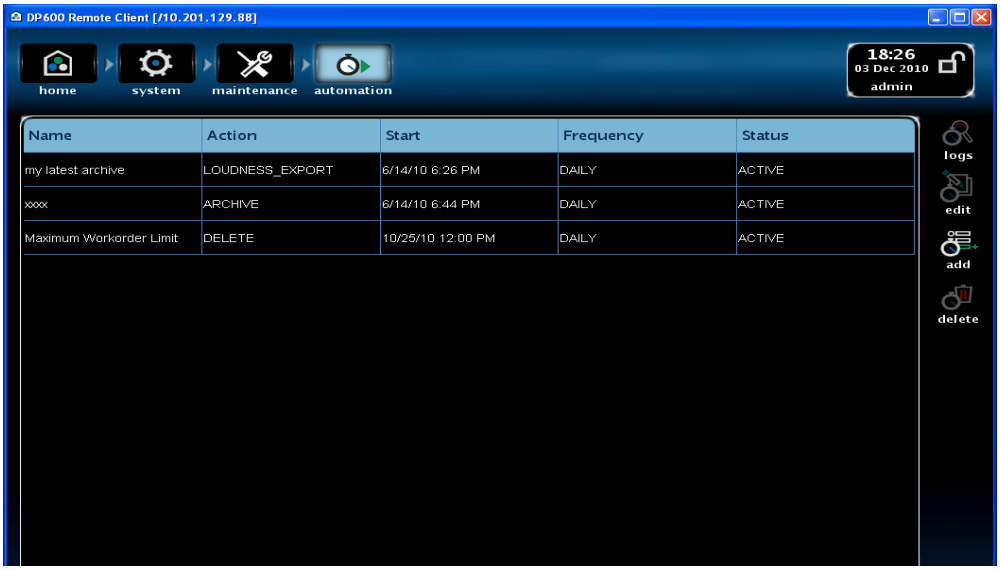

Figure C-19 Automation Screen After Setting Up Criteria

In addition to the **add** button, this screen also provides three additional options in the right margin:

- **logs**: Displays a list of logs, indicating the date, time, and status (success, failure, quarantine finished [for corrected files], or quarantine failed [for uncorrected files]) for the selected automation job, as shown in Figure C-20 and Figure C-21.
- **edit**: Displays the **Update Automation Criteria** screen for the selected automation job. In this screen you can edit the respective job's automation criteria, as shown in the examples in Figure C-22.
- **delete**: Deletes the selected automation job.

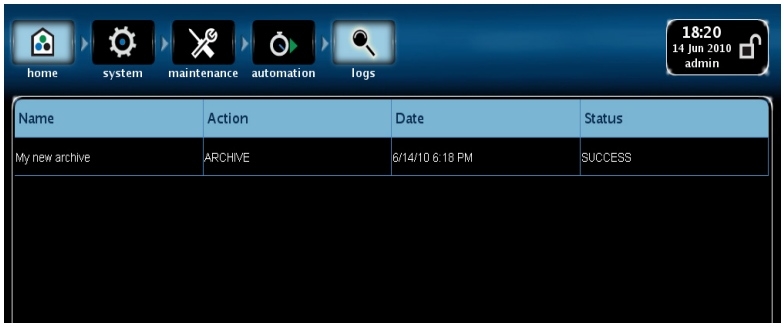

Figure C-20 Logs Screen (Success)

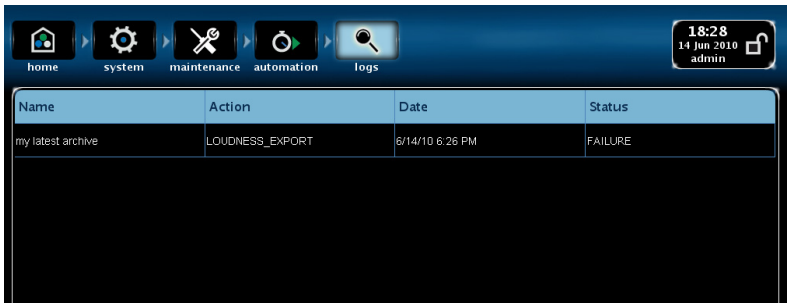

Figure C-21 Logs Screen (Failure)

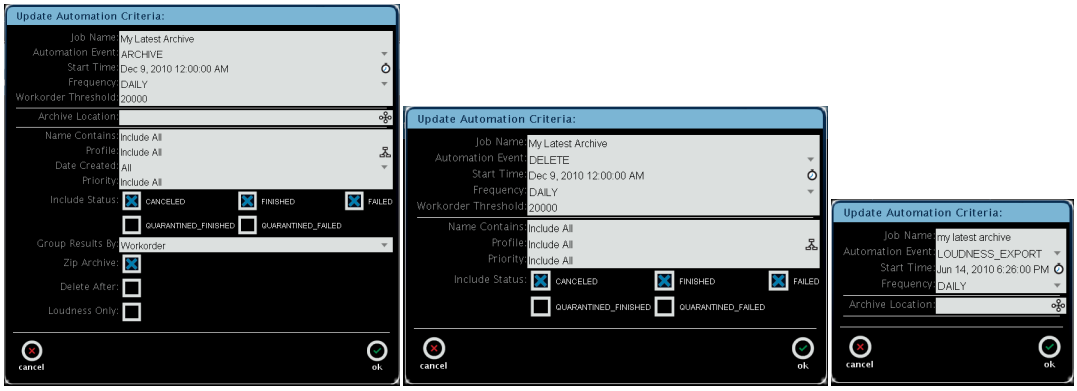

Figure C-22 Update Automation Criteria Screens

Archiving System Logs

To archive system logs, press or click **system log** in the **maintenance** screen.

The **Select System Log Output Directory** screen appears, as shown in Figure C-23. This screen functions in the same way as entering a path for work order files, as described on page 35 (and is described in greater detail in Section A.2 and Section A.3). In this case, you specify a directory where you want to save the DP600 Server logs. If you experience a system problem, send the respective log file to your Dolby authorized technical representative.

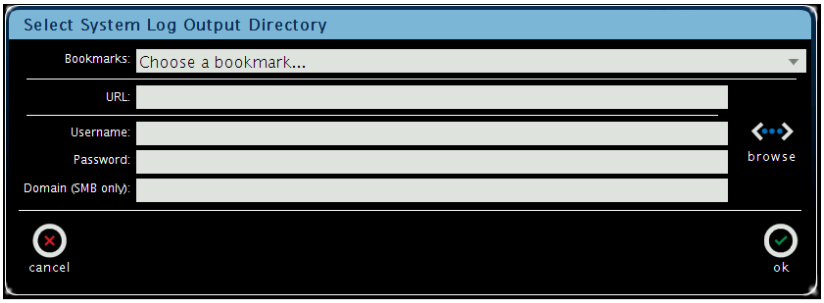

Figure C-23 Select System Log Output Directory Screen

Archiving Loudness Logs

To archive loudness logs, press or click **loudness log** in the **maintenance** screen.

The **Loudness Log Export** screen appears, as shown in Figure C-24. In this screen, select an export location using the same procedure that is described for entering a path for work order files on page 35 (and described in greater detail in Section A.2 and Section A.3). In this case, you specify a directory where you want to save the DP600 loudness logs (in addition to entering the export criteria).

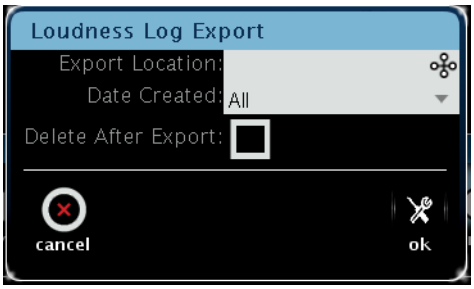

Figure C-24 Loudness Log Export Screen

The loudness log export function allows you to export loudness correction and work order status information for the specified time period. Each export provides a log file for each day in that time period.

Optionally, you can delete the logs after exporting.

Rebooting and Shutting Down the System

To reboot or shut down the system:

1. Press or click **power** in the **system** screen.

   The **power** screen appears, as shown in Figure C-25.

Figure C-25 Power Screen

2. To reboot or shut down the system, press or click **reboot** or **shutdown**, respectively.

   A confirmation prompt asks if you're sure you want to reboot (or shut down) the DP600, as shown in the example in Figure C-26 for a reboot.

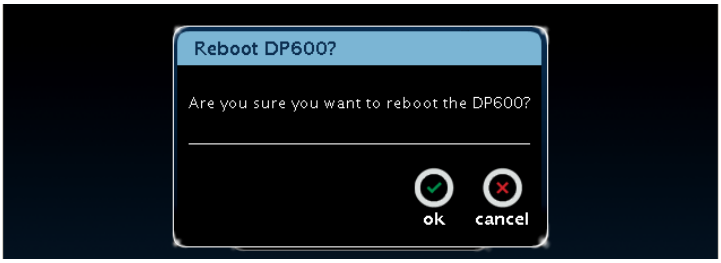

Figure C-26 Reboot DP600 Confirmation Prompt

3. Press or click **ok** at the prompt to reboot (or shut down) the system.

   If pressing or clicking the **reboot** button does not work, you can press <Ctrl>+<Alt>+<Delete> on the provided keyboard.

   When you shut down, the **Dolby DP600 Program Optimizer** screen appears, as shown in Figure C-27. When you see this screen (and the drive LEDs are not blinking), disconnect the power cables to shut down completely.

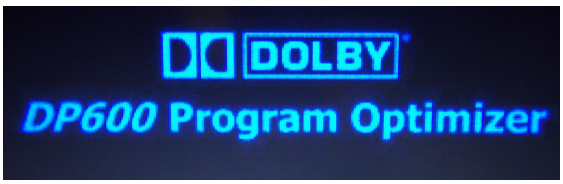

Figure C-27 OK to Shut Down when This Screen Appears (And the Drive LEDs Are Not Active)

Caution: Currently the front-panel touch screen may not display the local **home** screen following a system restart, while remote clients continue to display correctly. In such a case, reboot the system again to display the local **home** screen.

Send Us Your Feedback

If you have a question or a comment regarding this appendix, send us an email.

Index

access levels
admin ... 79
user ... 79
viewer ... 79
add work order ... 33
adding users ... 83
admin level access
defined ... 79
logging in ... 32
setting up ... 80
applications
cable ... 4
described ... 3, 4
IPTV ... 4
satellite ... 4
terrestrial broadcast ... 4
archiving work order reports, manually ... 88
archiving, system logs ... 93
audio port ... 9
audio processing
with metadata ... 2
without metadata ... 2
audio transcoding ... 3
audio types
coded ... 5
linear ... 5
supported ... 5
automatically archiving, reports ... 90–92
automatically deleting, work order ... 90–92
browse
entering a path ... 66
cable applications ... 4
calibrating the touch screen ... 61
cancel, system setup ... 13
CD/DVD drive ... 6
changing the default access level ... 83
Client
described ... 27
home screen ... 30
running ... 29
coded audio types ... 5
config ... 84
date and time
network settings ... 17
reconfiguring ... 85
default access level
changing ... 83
deleting ids and passwords ... 83
deleting work order reports, manually ... 88
DHCP ... 14
display control button ... 7
DP600
applications ... 4
audio types
supported ... 5
components ... 6
described ... 1
drive
internal ... 50–55
rebuilding ... 55
replacing ... 50
formats
supported ... 5
front panel ... 6
drive cover, reinstalling ... 55
drive cover, removing ... 51
hardware installation ... 11–23
home screen ... 24
integrating ... 3
LEDs
internal drives ... 7, 49
power ... 7
power supply ... 7
temperature ... 7
power supply, replacing ... 57–60
rear panel ... 9
registering ... 21
software
installing ... 60
upgrading ... 60
system reset ... 7
system setup ... 12–23
work-flow integration ... 3
DP600 Client
described ... 27
home screen ... 30
running ... 29
drive
internal
activity ... 7
failure ... 7, 49
rebuilding ... 55
replacing ... 50
Ethernet port ... 9
fans ... 9
filter criteria ... 41
formats
media file ... 5
front panel
components ... 6
gateway address ... 14
general configuration ... 13
Grass Valley hot folder
described ... 29
selecting ... 33

hardware installation 11–23
home screen
  front panel 24
hostname 13
hot folder
  described 3
  Grass Valley
    described 29
    selecting 33
  mono-only
    described 29
    selecting 33
  Omneon
    described 28
    selecting 33
  Pinnacle
    described 28
    selecting 33
  work order
    described 28
    selecting 33
IP address 14
IPTV applications 4
LEDs
  DP600
    internal drives 7, 49
    power 7
    power supply 7
    temperature 7
license
  downloading 22
  upgrading 22, 87
linear audio types 5
local storage indicators
  front panel 6
login screen 32, 81
loudness analysis 3
maintaining
  work order 88
media file formats 5
monitor port 9
mono-only hot folder
  described 29, 71
  selecting 33
mono-only standard work order
  described 28
  selecting 33
multi-file standard work order
  described 28, 71
  selecting 33
netmask 14
network settings 13
  date and time 17
  DHCP 14
  gateway address 14
  general configuration 13
  hostname 13
  IP address 14
  license 20
  netmask 14
  NTP settings 18
  reconfiguring 84
  select region 19
  time zone 19
  upper interface 14
NTP settings 18
Omneon
  hot folder
    described 28
    selecting 33
Omneon standard work order
  described 28, 29, 71, 72
  selecting 33
path
  entering 64
    add bookmark 69
    browse 66
    destination 70
    select bookmark 69
    source 64
    url 65
pay-per-view 4
PCI slot 9
Pinnacle hot folder
  described 28
  selecting 33
Pinnacle standard work order
  described 28, 29, 71, 72
  selecting 33
postproduction 3
power
  LEDs 7
power supplies 9
power supply
  DP600
    replacing 57–60
  LEDs 7
power supply indicator
  front panel 6
profile descriptions
  details 75
program ingest 3
PS/2 port 9
quality control 3
rear panel
  components 9

reboot 94
registering product 21
reports, automatically archiving 90–92
retry count 38
retry delay 38
satellite applications 4
scan interval 38
select region 19
serial port 9
shared folder
  setting up 63
shutdown 94
software
  information 86
  installing 60
  upgrading 60
stable period 38
standard work order
  described 28, 29, 71, 72
  selecting 33
status
  checking 25
system
  rebooting 94
  setup 12–23
  shutting down 94
  status 25
system administrator functions 79–94
system logs, archiving 93
system reset button 7
system screen
  locked 25
  unlocked 84–94
temperature
  LEDs 7
terrestrial broadcast applications 4
time zone 19
touch screen
  calibrating 61
  front panel 6
  recalibrating 86
upgrading
  license 20–23, 87
  software 60
upper interface settings 14
USB port
  front panel 6
  rear panel 9
user level access
  defined 32, 79
  logging in 32
  setting up 83
video-on-demand 3
viewer level
  defined 79
work flow
  controlling 3
work order
  archiving reports, manually 88
  automatically deleting 90–92
  cancel 45
  creating 32–39
  database 42
  delete 45
  deleting reports, manually 88
  described 27
  destination 36, 73
  edit 45
  enable quarantine 38
  end at 37
  exporting reports 45
  filter criteria 41
  Grass Valley hot folder
    described 28, 29, 71, 72
    selecting 33
  hot folder
    described 28
    selecting 33
  info 42, 43
  IP address 38
  IP port 38
  maintaining 88
  mono-only hot folder
    described 29, 71
    selecting 33
  mono-only standard
    described 28, 71
    selecting 33
  multi-file standard
    described 28, 71
    selecting 33
  Omneon hot folder
    described 28, 29, 71, 72
    selecting 33
  Omneon standard
    described 28, 29, 71, 72
    selecting 33
  pause 45
  Pinnacle hot folder
    described 28, 29, 71, 72
    selecting 33
  Pinnacle standard
    described 28, 29, 71, 72
    selecting 33
  profile 3
    described 29
    selecting 39
  reports 42, 46
  reports, automatically archiving 90–92
  retry count 38

retry delay 38
scan interval 38
source 35, 64, 70
stable period 38
standard
described 28, 71
selecting 33
start at 36
type 33
work-flow
integration 3